THE EARLY HISTORIC LANDSCAPE OF STRATHEARN:

the Archaeology of a Pictish Kingdom

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Abstract

This study concerns the social and political organization of the early medieval kingdom of Fortiu which occupied present day Strathearn in eastern Scotland. Archaeological and historical sources are used to examine the development of the administrative structure at the root of the Medieval state of Scotland. There are three main aspects to this study.

First, the historical evidence bearing on social organization in early medieval Britain and Ireland is used in conjunction with archaeological evidence for economic activity to produce a generalized model of early medieval society suitable for Pictland. Second, the archaeological evidence of settlement in Strathearn, both upstanding sites and cropmark sites revealed by aerial photography, is examined as a means of assessing the character of Pictish settlement systems, their agricultural practices and, ultimately, Pictish social organization. The third line of enquiry is to compare the archaeological evidence with the details of documentary evidence. This is done at two levels: the archaeology around specific well documented sites is discussed in relation to that evidence and then a broader assessment is made of the evidence with respect to the pre-feudal administrative structures.

It is argued that during the Pictish and early Scottish periods as the polities in the east grew more state-like the importance of kin-based social relations diminished and proto-feudal social bonds became increasingly important. However, throughout the period land tenure and agricultural production remained central to the maintenance and reproduction of social and political relations . Archaeological evidence is essential for an historically sound study of these developments.

Preface and Acknowledgements

I have undertaken this study from the perspective of an anthropologically trained archaeologist and of a medievalist concerned with social history. This study cuts across many of the traditionally established fields of academic research and as a result I have drawn upon bodies of scholarship in which I have no expertise. One consequence is that there may be mistakes or misunderstandings of detail, but I would hope that they do not undermine the structure of the argument. Any such mistakes do not reflect on the level of supervision I have received or on the advise I have taken from my colleagues. On the contrary I have been saved from numerous errors by the many people who have contributed to this work, any remaining mistakes are my own.

It is a real pleasure to acknowledge the help and support I have received in researching and writing this thesis. It is no mere convention to say that without the contributions of many friends and colleagues this text would not exist. My greatest debts are to Leslie Alcock, who has proved a generous mentor and stimulating supervisor. My intellectual debt is evident in the references and bibliography, but it extends deeper to many ideas I have picked up in an informal way and which cannot be explicitly cited. In addition he has helped me secure funds from various sources which have made it possible to study in Glasgow. Lastly he has never failed to provide encouragement during the course of my studies. I was introduced to much of the detailed literature and field archaeology on early medieval Scotland, Ireland and Britain by Margaret Nieke, who has always generously shared her own ideas about the history and archaeology of the period. Over the years I have discussed with profit most of the aspects of this work with her and appreciate her interest in my work. I also a considerable debt to John Barrett who has been my most important source of archaeological theory and whose enthusiasam for a critical social archaeology has been infectious.

Individually my colleagues in the research room - Nick Aitchison, Iain Banks, Duncan Campbell, Andy Foxon, Sally Foster,

Pam Graves, Alan Leslie and Ross Samson - have each contributed to different aspects of this work, collectively they have created an atmosphere suitable for serious scholarship and conducive to progressive research. At the effective level of formulating ideas and developing new ways of looking at problems they have been a most important stimulus. At the equally necessary mechanical level of proof reading and referencing they have always been dependable. It goes without saying that they have been a constant source of encouragement.

I have also accumulated a more specific set of debts in the course of this work. The late Margaret Stewart and Elizabeth Bain were kind enough to discuss their work in Strathearn with an ignorant foreigner and in Miss Bain's case to actually introduce me to the deserted settlements of the pre-Improvement period. Lesley Macinnes introduced me to the problems of interpreting aerial photographs and taught me how to transcribe them. Gordon Maxwell has been a ready source of good advice on problems relating to interpreting aerial photographs. Kirsty Pringle helped with the preparation of many of the drawings and gave much advice on the graphics. The staff of the Ordnance Survey and National Monument Record, especially Lesley Ferguson, have been more than kind in helping me locate what I was looking for and more than understanding in lending aerial photographs. I am most grateful to Diana Worcester of Glasgow University Computer Centre, who installed the system for transcribing aerial photographs. The Planning Department of Tayside Regional Council generously supplied dielines of the necessary 1:10000 map coverage for the study area. There is no typist to thank, but Liz Slater has patiently solved my continual problems relating to the use of the computer and word processor. There have of course been many others who have responded to my requests for information and pleas for help. I hope that I have acknowledged their specific contributions in the text.

I am obliged to many sources for financial support. The most substantial of these have been the various scholarships awarded by Glasgow University and the contribution towards my fees made by the Universities Grants Committee under the Overseas Research

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SECTION I:

Introduction

Chapter 1

Synopsis

This work sets out to examine aspects of the early medieval settlement history of Strathearn, Perthshire, in east central Scotland. The valley of Strathearn constitutes the heart of the former Pictish kingdom of Fortriu which eventually came to form the core of the medieval kingdom of Scotland. The importance of the region in the formation of the medieval state is not in doubt, but little is known of the formation processes themselves. Our historical knowledge of Pictland is scanty, largely consisting of brief notices in contemporary Irish and English sources. There are very few early Scottish texts, but to some extent this shortcoming is compensated for by the country's rich archaeological heritage, which includes many hilltop fortifications, sculpted stone monuments, churches and upland tracts of pre-modern landscapes. The aim of this thesis is to explore the latent potential of this archaeological evidence and so improve our understanding of the historical development of the Pictish, and subsequently the Scottish, kingdoms. The historical perspective of the thesis is defined by those social developments which may be analysed archaeologically. These are generally considered to constitute aspects of social history. Specifically this concerns those aspects of social reproduction which are described as economic, which in this case are almost exclusively agrarian. Understanding the patterns of settlement and the forces which contributed to their formation are therefore the first step in any social analysis of the period.

The primary task is to 'populate' the valley in the Pictish period and to understand why people chose to live where they did.

Aside from the hillforts, knowledge of settlement history is scanty and consists of what may be gleaned from the survival of ancient place-names and the distribution of Pictish archaeological material. There are two ways forward: one involves adding new data to the established archaeology of the Picts, the other is to adopt an alternative theoretical approach towards the available historical data and their relationship to the archaeological record. Both paths have been followed in the course of the research, the results of which can be best explained by outlining the contents of the five sections which constitute the thesis.

I: Introduction

The first section contains three chapters. This synopsis of the contents and organization of the thesis is followed, in Chapter 2, by a more detailed discussion of the the problems under consideration and the definition of the chronological and geographical limits of the study. Chapter 3 is a theoretical statement on the approach to the source material. It argues that in order to integrate the archaeological and documentary sources effectively it is necessary to place them on the same epistemological plane. That is, all artefacts, including texts, can be seen as the products of human agency; as such they are created in the process of negotiating social relations. The task of the historian or archaeologist is to recover the social context in which such human expressions were made and used. By so doing, the historian reconstructs the discourse within which the material symbols (the pots or books) were mobilized. The approach described by this metaphor of <u>discourse</u> guides the cultural

analysis contained in this thesis as a whole.

II: Early Medieval Social Reproduction

A backdrop to the analysis of the settlement evidence which contains an outline of the agrarian history and the prevailing social formations as they are revealed in early medieval documents and archaeolgy. In addition to considering the material conditions of agricultural reproduction, the analysis also focuses on the social relations engendered by these material conditions. This social analysis includes a specific examination of the interconnection between kinship, lordship and land tenure as recorded in traditional tenurial practices and early medieval legal texts. This enquiry not only allows us to understand the role of material goods in those discourses which, in daily and seasonal practices, constitute social relations, but also to generalize about the implications of such social relations for the settlement system.

III: Settlement Archaeology

The settlement evidence is set out here. The main sources of new data consist of the recently excavated hillforts at Dundurn and Clatchard Craig, and the aerial photographic record accumulated over the last decade. The recent excavations are used as a guide in the analysis of upstanding field remains, and having developed a classificatory scheme for the forts and other settlements, the aerial photographs are analysed. The sites recorded in oblique aerial photographs were rectified using a microcomputer and transcribed as standardized plans. These plans were subject to a classificatory procedure similar to that

derived from the upstanding remains. This generated a range of site types likely to be Pictish. Most striking is the series of small ditched enclosures, thought to contain single farmsteads, which are dispersed throughout the valley. These are thought to form the smallest element in the settlement pattern. Such sites are all but unknown on the hilly margins of the valley where archaeological remains are best preserved. The distribution of these farmsteads complements the better known distribution of elaborately defended hillforts, churches and symbol stones.

IV: Settlement Pattern and Landscape Model

The evidence of the documentary and archaeological record are integrated here. In areas of known historical significance the archaeological features are used to build up a more detailed knowledge of the immediate neighbourhood. This fairly traditional procedure has been followed by generations of antiquarians and medieval archaeologists, and the results place these sites more firmly within their ancient setting. The second approach is more ambitious; it proposes a systematic landscape model generated both by the settlement patterns and by the social and economic structure. The historical evidence, drawn from early medieval Britain and Ireland, considered in section II, was supplemented by evidence more specifically relevant to Pictish studies; namely the place-name evidence, early land grants noted in the Book of Deer, and later medieval charters. The result is a model of the evolution of the Pictish kingdom into the Scottish state which may be tested archaeologically.

V: Conclusion

The final section concludes with a brief consideration of the historical implications of the landscape model and offers some proposals for future field investigation. The conclusions reached here are limited by the present state of knowledge of the archaeological record, but in principle they are compatible with the framework for historical archaeology suggested in the introduction to this study.

Appendices

Appendix I is a collection of 1:10 000 maps of Strathearn, upon which aerial photograhic evidence of settlement sites has been plotted. It does not contain the complete coverage for Strathearn, but does include all cropmark sites. Appendix II is a discussion of the Gaelic notitiae of the Book of Deer.

Chapter 2

Defining Problems: Study Area and Chronological Limits

What allowed the Kingdom of the Scots alone of the Celtic realms to emerge from the early Middle Ages as a unified political entity? And why did the Scottish state coalesce in Pictland? As far as we can tell from our distant perspective, the kernel of the medieval Scottish state developed in southern Perthshire during the mid-ninth century. It was from Strathearn that Kenneth mac Alpin consolidated his dominion over the combined Pictish and Dal Riatic nations that came to form the core of the later Medieval kingdom. It was at the ceremonial centres of Scone, St. Andrews and Dunkeld which surround Strathearn that the Scottish monarchy proclaimed its identity. Of course Kenneth did not make the Scottish state any more than Alfred made England; he represents the culmination of social and political tendencies of considerable antiquity. As a means of studying these cultural developments I have chosen to distance myself from the occasionally documented exploits of a few, historically ambiguous, characters and to examine closely the anonymous material testimony of the archaeological record. By focusing on the region's long-term social and economic developments it has been possible to free the analysis of state formation from the overbearing presence of the historically attested, but ambivalently motivated, individual.

Strathearn was an obvious choice for this exercise in historical archaeology: comparatively speaking it is richly documented and its archaeology is by far the best known of Southern Pictland. The guiding premise of this study is that such

social and economic structures as led to the development of the historic political formations of early Scotland are embodied in the material residue of those societies and embedded in the landscape. In the remainder of this section, I will set out the spatial and chronological limits of the study, discuss the nature of the historical and archaeological evidence, say something about the methodologies employed, as well as outlining the theoretical perspective which has informed my work.

While methods of farming, patterns of land use and economic structures have utterly changed in the last 1000 years, the hills and rivers have remained relatively stable. Drawing lines on maps is, as the Romans found, no easy task; even the construction of a wall produces political divisions which are inevitably temporary. Boundaries created by natural features are less problematic — provided the people living there perceive that they are bounded. In our case it is not entirely clear just what would have constituted the boundaries to Pictish Strathearn, or put another way, how did the geographical area of the valley fit into the political structure? Modern scholars are agreed that Strathearn formed the core of the petty kingdom of Fortriu; leading medievalists disagree, however, about what adjacent regions should also be included. One thing seems clear, the confines of Fortriu fluctuated over time, undoubtedly reflecting political fortunes of which we have only the haziest knowledge. Given this uncertainty in the precise extent of Fortriu (of this, more later), I have elected to define a study area based upon prominent natural features. However, before we look at the physical geography of the the valley, we must consider the political

geography of the region.

Political Geography

In an early historic context the term Pictland is generally used to describe the area of modern Scotland north of the Forth-Clyde isthmus excepting Dal Riata, which is roughly equivalent to the former county of Argyll (see figure 1.1). Without further qualification this use has the unfortunate consequence of suggesting a broad cultural uniformity stretching from Skye, or even Lewis, up to Orkney and down the east coast to Fife. This has never been the case, as any survey of prehistoric archaeology reveals, and it is especially misleading for the Early Historic period. Arguably the most important new development during our period was the introduction of Christianity, and there is no doubt that the conversion proceeded at an uneven pace. This alone will have created cultural differences. As far as we can tell from such archaeological indicators as the distribution of Class II symbol stones, and from documentary evidence on the establishment of episcopal sees, the north and northwest lagged behind the south. Bede tells us as much when he says that the southern Picts were converted by St. Ninian, while the northern Picts had to wait, perhaps over a century to receive the Columban mission (HE iii, 4). Minimally we must be willing to accept Bede's statement that the Mounth divided the Picts into northern and southern regions, which represented major zones of hegemony. However, there is good reason to believe that a more precise political geography existed within this major division. Evidence of a seven fold division of Pictland is contained in the Irish

origin legend, of perhaps the eighth century (Mac Eoin 1964) and is reproduced in the twelfth century De Situ Albanie (Anderson 1922:139ff). These regions represent perceptible political divisions at the time of composition and can be identified with fair confidence. Having said that, and noting the inherent difficulty of defining on the ground even the best documented of these regions, Fortriu, how should we use the terms Pictland and Pictavia? I think that we must begin by accepting, along with most of the scholars who have dealt with this problem, that we will never be able to locate these regions precisely, but they did none the less exist. So that when we use use the term Pictland we do so with the knowledge that we are incorporating several regions and a degree of cultural variation. The suggestion that the term be dropped because of these variations and because we do not know what people in, say sixth century Inverness, would have called themselves, is beside the point. Pictland conveniently describes the part of northern Scotland in which dwelt the Picts, and I shall use it to describe the conventionally accepted area without, however, placing too much analytical weight upon it. The problem of defining the boundaries of Fortriu, to which we have alluded, illustrates more clearly many of the problems with early medieval political geography.

Fortriu

As we mentioned, historical scholars are in disagreement about the exact extent of the kingdom of Fortriu, in some instances quite serious disagreement. Although all would regard Strathearn as the heart, some would include a great deal more. In

Celtic Scotland, Skene defined it as 'the district between the Forth and the Tay' (1886:207,340) and T.F. O'Rahilly was inclined to included Fife and Forfar as well (1946:371, n.3), while at the other extreme Duncan equates Fortriu with Strathearn alone (1975:47-8). Wainwright identified onecause of disagreement, when he noted that 'Fortrinn [an alternative form of Fortriu] had two meanings: strictly it was the name of a single province, but it could be a synonym for Pictland, as when Brude mac Bile was described as "King of Fortrinn"' (1955:51). It is in the strict sense that Duncan uses the term, while at the same time recognizing that the 'King of Fortriu occupied a dominant position among the Picts and usually held the overkingship' (1975:48). In this respect the discrepancy appears to arise from the political dynamics of early medieval kingship, which has led to misunderstandings of the ways that royal titles were used in the contemporary sources to signify political relationships and status. There exists a second, subtler source of confusion, which arises from changes in the political geography and the transmission of geographical knowledge in later medieval sources.

The key text for this discussion is De Situ Albanie, which was composed during the reign of William the Lion (1165-1214) (Anderson 1980:139ff, Cowan 1981). Essentially it is a rudimentary geographical survey, which survives as the preface to the so-called Scottish Chronicle. In this survey the seven provinces of Pictland are listed bearing Scottish names, which are readily identifiable today. For instance, 'Sradeern cum Meneted' is clearly Strathearn with Menteith. The seven fold division of Pictland also occurs in the pseudo-historical foundation legend which is attached to some versions of the King

Lists (Anderson 1980:80ff). In this legend Cruithne, progenitor of the Picts, has seven sons who are the eponymous founders of the provinces of Pictland, including one Fortrenn. The two sets of names can be made to correspond with only two uncertain identifications (Watson 1926:107-18, Wainwright 1955:46-7), and there is no doubt that Fortrenn is to be equated with the province called 'Sradeern cum Meneted'. The problem, which arises stems from the origins of the two lists of provinces. De Situ Albanie was composed well after the Dal Riadic ascendancy, while the other list may be claimed to reflect the Pictish situation some centuries earlier. They are then strictly speaking not comparable.

The solution to the problem of what constituted the province or kingdom of Fortriu is to be found not simply through a comparison of lists, but requires a close reading of the contemporary sources, which chart the fluctuating usage of the term. M.O. Anderson has made that close reading and, while accepting that the kingship of Fortriu was often a synonym for the overkingship of southern Pictland, she is able to offer rather more precise definitions of the province. During Pictish times, up until the mid-ninth century, she suggests that 'Fortriu extended to the left bank of the Tay, and included at least the southern part of Gowrie, including Scone' (1980:141). The political stability of the Dal Riadic dynasty seems to have coincided with a slight contraction so that 'after the Pictish period, there is evidence that Strathearn was a principal part of Fortriu, if indeed the two names are not used synonymously' (ibid:141).

This discussion has established that Strathearn was the

principal part of Fortriu , but it has served another purpose. It has introduced several of the undercurrents flowing through this thesis. Firstly, it will be useful to bear in mind that although the kings of Fortriu were often the most powerful in Pictland, if not in north Britain, claims to that preeminent position were not institutionalized. The actual area dominated by a particular king depended upon his political and military acumen, hence the fluctuations in the extent of Fortriu over time. They also depended on changes in the institutional framework of the kingdom, as the state grew stronger the lords of Strathearn were no longer free to expand at will.

The second point to note is that although this thesis is nominally concerned with Pictish Strathearn, this is not easily divorced from later pre-feudal 'Scottish' Strathearn. This is because most of the historical sources and the archaeological data cannot be placed neatly on one side or other of AD 843, the supposed date of Kenneth mac Alpin's succession. We will return to chronology below, but taken together these points have the unfortunate consequence of making it difficult to be as geographically and chronologically precise as we would wish. If however there is one aspect of the geography about which we can be precise it is the topography, to which we now turn.

Physical Geography

Making allowances for meanders, the river Earn flows nearly due east and enters the Tay just south of Perth some 61 km from its origin at St. Fillans (see figure 1.2 and 3.1). The drainage of the Tay's largest tributary is defined by three groups of

hills . The most imposing of these are the southern Grampian Mountains which define the northwestern extent of the valley. Equally rugged are the eastern Trossachs which mark the southwestern limits of the valley. By comparison the gently glacier-worn Ochils, which run along the southern length of the valley, are more properly termed hills. None the less they are imposing topographical features with large expanses of windswept moorland that effectively separate Strathearn from the Forth valley and Fife. Moving from Loch Earn towards the Tay the valley swells from a narrow glen to a sprawling strath which elides with the Almond river drainage to the north making it quite difficult to decide where Strathearn ends and Glen Almond begins. In this respect the parish boundaries are no help, since they frequently run from river to river. For this study I have confined the systematic examination of the aerial photographic record and the upstanding monuments to south of the Almond and west of the Tay. In a more eclectic fashion I have drawn upon other archaeological material from beyond those two rivers, neither of which is a formidable barrier except when flooded. Indeed the Tay is better characterized as the major avenue into the area than as a restricting boundary. The many Romans camps and forts on the Tay indicate its strategic possibilities as far as supply is concerned and Perth was certainly a prosperous port in the later middle ages. In the light of the reputation of the Picts as competent sailors, we cannot doubt that they too appreciated the rivers linking potential.

One of the geographic factors which may have contributed to the valley's importance is. that, unlike neighbouring Strathmore, access to Strathearn from most directions was restricted to a few

readily monitored routes. Moreover these are the major connecting routes linking central to northeastern Scotland and the West to the East. By far the most direct overland route between southern Pictland and Dal Riata was that which funnelled through the western end of the valley past the Pictish stronghold of Dundurn. Strathallan connects Strathearn with Dunblane, Stirling and the Forth valley and no doubt was, as it is today, the principal north-south corridor. As mentioned before, east bound traffic could follow the Tay; however, travellers heading to Fife and St.Andrews may have preferred to go overland through the Lindores gap. The only barrier between Strathearn and Strathmore is the Tay which was most easily crossed at Bertha just south of the mouth of Almond, where a Roman bridge may have stood. As we will see, constellations of sites grew up around these passageways which were to form key points of the administrative structure of the valley.

Environment

Simply put, Strathearn's fertile soils and favourable climate combine to make the valley one of the richest regions in the northeast. A more scientific and thorough assessment of agricultural productivity may be gained from the Macaulay Institute's Soil Survey for Scotland (1982). At the scale of 1:250,000 the survey does not allow for very fine grained analysis, but the Land Capability for Agriculture portion is useful for gaining a general impression of fertility, since it evaluates soils, climate and relief and reduces them to a seven-tiered classification system. Class 1 is the best, class 7 the

worst. Like any historical document, the context of its production and its intended audience are relevant to its interpretation; these maps are for 'land-use planners, agricultural advisers, farmers and others involved in optimizing the use of land resources' (Macaulay 1982 vol. 5,165). The classifications very clearly reflect the concerns of the modern agricultural market: class 1 is distinguished from class 2 by its ability to support 'exacting crops such as winter-harvest vegetables' (ibid:170) and to produce 'consistently high yields' but both class 1 and 2 produce 'high yields'. Early medieval communities not concerned with maximizing production of exotic crops for urban populations and international markets may not have appreciated this distinction. Classes 1-4 are considered 'suited to arable cropping', while classes 5-7 are described as 'improved grasslands and rough grazings' (ibid:170). For our purposes there is little to be gained from subdividing these basic categories of arable and pasture, even on land classed as 3.2 'high yields of grass, barley and oats are often obtained' (p.170). To what extent these 'high yields' are the products of mechanized farming practices and chemical fertilizers is a question for agricultural historians, but it should bring to our attention that these reflect both contemporary values and conditions, both in terms of the preference for exacting crops and the demands of the market place. At best the Macaulay soil maps provide an impression of past land value, but have no precise analytical value for historical studies. This becomes apparent when we look in more detail at Strathearn and at pre-modern farming practices.

The casual reader of the Statistical Accounts for Perthshire

will be in no doubt as to the agricultural wealth of the valley. Similarly Coppock's Agricultural Atlas of Scotland (1976) indicates the historical productivity of the region, but neither takes us back before enclosure and the impact of capitalism. In Parry's study of climatic change in relation to agriculture and settlement he notes that, as late as 1895, oats were cultivated at altitudes between 320-350 meters above sea level in the Lammermuirs (1978:80). The use of what would today be considered marginal lands occurred further north, for as J.B. Stevenson has noted "even in this century crops were harvested in Perthshire on the slopes of Schiehallion at heights, again, of 300 meters above sea level" (pers. comm. reported in Evans 1975:150, see also Stevenson 1975:107). So we should allow for the possibility that the margins of arable activity extended further into the hills than the Soil Survey would suggest, and we should imagine that plots of land too small to farm with machines would have been used, and that husbandry practices focusing on cattle will have led to differing patterns of land use. This is of course not the same as saying that much permanent settlement would have extended into the hills; Parry is quite explict about the difficulties presented by trying to link climate, farming practice and actual occupation (1978).

According to the Land Capability maps, Strathearn is today virtually all class 2 or 3 with a few small zones of more restricted fertility like the rocky eminence of Moncrieffe hill. Figure 1.3 presents a simplified version of the Land Capability survey for all of Scotland and emphasises Strathearn's relative fertility. Perhaps the best testimony to the concentration of fine land in Strathern is indicated by the coverage of the more

detailed 1:50,000 Land Capability survey. The coverage stops about 5km west of Crieff, where the valley constricts, and excludes from consideration the less fertile western third of the valley. A further obstacle to direct application of the Land Capability maps to the early historic period is the improvements which have been carried out in the last 1000 years. One of the poorly rated areas is a raised bog known as Methven Moss, which seems to be the surviving core of a larger moss which was drained under the direction of the Augustinian Canons of the revealingly named Inchaffrey Abbey (Fenton 1976:18): inch- of course means island. The original extent of the moss can only be guessed at, but if the revetted, straight coursed channels of the Pow Water and Cowgask Burn are any indication, then the area of improvement is vast, including the Pow drainage between the Braes of Fowlis and the Gask Ridge from the Methven Moss to Inchbrakie Castle, an area of some twenty square kilometers. Thus, although the soil maps confirm the impression of richness gained by the modern visitor, access to information on medieval fertility and productivity is more elusive. It seems that 'no major climatic changes are thought to have occurred since about 500 AD' (Dawson 1975:2), an opinion which is echoed by H. H. Lamb with some qualifications (1981). Lamb notes that the general warm, dry climatic tendency which began at the end of the Roman period and continued through to the 'Little Climatic Optimum' of the eleventh to fourteenth centuries was punctuated with colder wetter episodes in the sixth and ninth centuries including some 'disastrously' wet years in the 580's! This suggests an environment similar to the present day, but it is hard to know what to make of the episodes of bad weather, nor does such

information give any direct measure of the actual environment.

Palaeoenvironmental studies conducted to write vegetational histories or in conjunction with archaeological research provide the only reliable information about the ancient environment. Unfortunately the situation in east central Scotland has changed little since Caseldine commented that 'the development of pollen analysis in Scotland has been marked by a lack of studies devoted to the understanding of the anthropogenic factors in vegetation history' (1979:1); it has, in a sense, been a natural history, not a human history. Hanson and Macinnes's study attempting to ascertain the extent of forest cover during the Roman period revealed the limitations of the existing environmental data (1981). In that study the inadequacies of the palaeobotanical record forced the authors to estimate the amount of timber required to build Roman and Iron Age fortifications and extrapolate from that the requisite forest area. Based on this tentative, chronologically vague premise, they argue that there existed limited forest cover in the first few centuries AD. They adopted this position because they could adduce no conclusive environmental evidence which might indicate even the relative proportions of cleared to forested land. Needless to say they were unable to consider the more interesting questions of woodland management. At roughly the same time, Judith Turner suggested on the basis of largely southwestern Scottish and northern English pollen samples that the major forest clearance episode in Northwestern England and Scotland began c 400 AD (1981:277), although most archaeologists would regard the dating of the pollen cores as inadequate. Whether such sweeping generalizations can be said to hold true for all of Scotland, is

something that future environmental research will have to examine.

The environmetal picture is not completely bleak. Recent studies are begining to make clear the longevity and extent of Scotland's agrarian history. Caseldine has suggested that forest clearance for agriculture was underway in southeast Perthshire by the third millennium B.C. (1979). Using pollen samples from Strathearn, palaeobotanists have reconstructed a 'Neolithic landscape in the Strathallan area not too dissimilar to that at present' (Hulme and Shirriffs 1983:272), by which they mean an open landscape largely given over to arable. Caseldine's analysis of the pollen from the excavation of the Moncreiffe stone circle confirms that cereal crops were being grown in eastern Strathearn during the third millennium bc (1982). Limited though these studies are they appear to cast doubt on Turner's generalization. The single palaeobotanical study of a Pictish site in southern Pictland happens to be Dundurn, and although evidence for plants from a variety of ecological zones was found, it could not be used to determine whether or not we may postulate the existence of an open landscape 'not too dissimilar' from the present, let alone extend it from the Neolithic through the Early Medieval period (Brough 1980). There is at least from Dundurn macroscopic evidence for the production of oats and barley (Alcock and Driscoll 1985:12). Considering all the available evidence, I think we must accept that detailed reconstruction of the environment of early historic Strathearn is some years away.

Chronological Limits

This study focuses on the period from the introduction of Christianity to the firm establishment of the medieval Scottish state, c AD 500 to 1057. It includes both the Pictish period sensu stricto and the period of Scottish ascendency conventionally dated to after AD 843. As with any attempt to define an historical epoch, there are both theoretical and practical problems with these limits and we will need repeatedly to transgress them. Sometime in the fifth or sixth century a permanent Christian presence was established in Pictland; from this point onwards Picts or people dwelling among them had the capacity to produce documents. For reasons which I have discussed elsewhere (Driscoll 1987b), this was a critical step in the political development which culminated in the formation of the Scottish kingdom. Although the growth of literacy remains inseparable from the expansion of the Roman world, knowledge of writing was to prove far more important in terms of the development of political institutions than were the brief military encounters along the Empire's northern frontier. This is a point to which we shall shortly return. The terminus of this study, AD 1057, marks the death of MacBeth, the last serious internal challenge to the authority based in east central Scotland and the final consolidation of the heartlands of the former northern and southern Pictish kingdoms.

The practical problems with the limits pertain most to the early date: by the mid-eleventh century documents were becoming more abundant, but no Pictish texts survive from the first centuries of the Early Historic era. This poses the question: why not begin with the apparently better documented Roman period instead of AD 500? To begin with, that 'better' documentation

pertains almost exclusively to Roman military activities and using it as a starting point leads to the 'and Native' syndrome where the local inhabitants are treated either as afterthoughts (Richmond 1958) or as the ancient equivalent of cannon fodder (Hanson and Maxwell 1983). More importantly the impact of the face-to-face encounter with the state apparatus of the Roman empire, legions, merchants/supply officers and tax collectors, certainly reverberated for centuries after their departure, but the encounter was brief. During approximately four centuries that Britain was a province the Roman presence north of the Forth-Clyde line amounted to at most 38 years, with no single occupation lasting more than 16 years (Hanson and Maxwell 1983:42-4, 143). Despite considerable research there is no evidence for any civil foundations, it was overwhelmingly a military presence. Mann is probably correct to suggest that 'the result of Roman pressure was the defensive coalescence of some of the peoples of the Highlands - ...the Caledonians ... and the Maeatae' (1974:40), but as he notes himself, this unity was the product of stress. If the history of the northern barbarians on the Continent is any guide, such experience of military pressure does not necessarily lead to the establishment of the sort of political formations which could be described as kingdoms or states. Rather the growth of the Barbarian kingdoms occurred only in those areas which had the experience of civil administration. The Franks migrated south into Roman Gaul and in conjunction with the Gallo-Roman aristocracy established the Merovingian kingdom, while their Saxon neighbours who stayed at home retained their loose tribal organization (James 1982, Wallace-Hadrill 1971). It is thus hard to accept Mann's statement (endorsed by Breeze

(1982)) that 'the Pictish kingdom was a product of the Roman presence in Britain' (1974:41) as anything more than a vague comment on chronological sequence. The experience of military conquest and economic exploitation, while capable of stimulating armed resistance and unrest, is insufficient to engender the sort of social structural changes which distinguish the tribal chiefdom from those which are evident in the Pictish kingdoms. Such fundamental changes elsewhere in barbarian Europe were the result of protracted contact with Romanitas, which in northern Britain is to be associated with Christianity and not with the Roman military. The results of this contact and its role in shaping the Pictish and Scottish kingdoms will become apparent as we go on, here I simply wish to make clear that c AD 500 marks the approximate advent of Christianity and for that reason is the starting point of this study.

The second difficulty in identifying an origin or watershed is more philosphical. The principles which govern the organization and outlook of a society develop over generations, not years, so the study of any society requires a sensitivity to these patterns of la longue durée (Braudel 1980). The fixing of starting points apparently undermines such an approach, even for well documented modern periods a focus on the revolutionary or the striking can be misleading (cf. Thompson 1963, 1978). Instances of radical social change in the face of European colonialism have emphasized just how much 'traditional' structures govern the cultural transformation. Marshall Sahlins' studies of early European contact with Polynesians is very instructive in this respect (1981, 1983, 1985) as is Anthony Wallace's study of the Iroquois, Death and Rebirth of the Seneca

(1969). The insistence, in these and other studies, on the longevity of cultural forms is perhaps the single point of convergence for the three approaches to the study of the past which I will draw upon: archaeology, historical materialism and ethno-history. I hope to show that some of the structuring principles which govern the process of culture change may be recovered for poorly documented periods by the use of archaeology.

It is possible to characterize historical studies by their tendency either to narrate a sequence of events or to construct a cultural portrait. This dual nature of historical study has different implications depending on one's historical data. One danger seen in purely document-based histories, where events may be precisely ordered, is to credit specific acts with considerable causal force. Archaeologists too can identify events, like the construction or destruction of a building and can be equally guilty of dwelling on the dramatic, as for instance Wheeler may have done with the Maiden Castle 'war cemetery' (1943). In early historic Scotland the best dated sites are those which appear in the documentary record, but since such sites often have long lives, it is not generally possible to associate positively a specific phase with the documentary notice. Coins, being rare in early historic Scotland and a peripheral part of the economy, cannot be assumed to be current at the time of deposition and conventional scientific dating can at best provide dates to within a standard deviation of 50-100 years. Archaeology is perhaps best suited to tasks such as exposing the material conditions of existence, identifying the slowly changing patterns of economic growth and eliciting

cultural attitudes. These are the elements of the the historical study of la longue durée, so it is perhaps fitting that much of the archaeological evidence upon which I will rely cannot be closely dated. These dating problems will be discussed specifically as they arise during the ensuing discussion. Thus the nature of the data leads us to conclude that the patterns observed in the archaeological record develop over long periods and in so doing may help to counteract the tendency to invest too much meaning in an historic moment at the expense of la longue durée.

Chapter 3

Approach to Source Materials: Artefacts and Documents

This is by no means a discussion of the methodology of historical archaeology, still less is it an introduction to the sources such as Hughes has written for Early Christian Ireland (1972). Here I offer only a general statement about my treatment of two , apparently distinct, bodies of data. It is particularly necessary to emphasize the potential of utilizing both sources in Pictish studies, since little that has been written on the Early Historic period of northern Britain demonstrates any commitment to using both sources of evidence. The work of Wainwright (1955, 1962a, 1962b) and Alcock (1971, 1981, 1987a) are notable exceptions. Admittedly there are severe limitations in the documentary material and in the published archaeological data, but by moving away from exclusively literate interpretations and attending to symbolic readings, together these sources may be made to yield more information about Pictish society than is generally appreciated. The starting point for any such effort is a clear statement of how to interpret Pictish society through their documents and artefacts. I will stress that it is through close attention to the contexts of production and use of material objects, including documents, that we come to recognize their implicit social meanings (Foxon 1982). In general terms this is nothing new; there are numerous studies which attempt to identify archaeological correlates in the documentary record: Angus Graham's 'Archaeological Gleanings from Dark Age Records' comes immediately to mind (1951). Nor is there any shortage of historical studies of the meaning of specific terms or phrases,

for example Campbell's 'Bede's words for places' (1979b). And in recent years there has even been the, possibly unique, effort to examine systematically the historical terminology on the ground in Alcock's various studies of early historic Scottish fortification. None of these studies however has broken away from the study of isolated words or sites and attempted to come to grips with society as a whole.

A further general point that needs emphasis at the outset is that, for the period of this study, the Picts are definitely historical in the sense that they participated in the production of documents, albeit in a modest way. This is not to say that most or even many Picts had access to literate skills, such a privilege was the prerogative of a small elite. Moreover, Pictland was not a homogeneous region: vast tracts of land remained isolated from direct and extensive use of writing until well into the Middle Ages. In Chapter 3 the still open questions about the origins and extent of Pictish literacy will be discussed. At this point it is worth noting that such documents as were produced reflected the interests of an elite minority. Anthropological studies of the impact of literacy upon non-literate peoples (Goody and Watt 1963, Goody 1968, 1977), which have provided fruitful guidance for other studies of medieval literacy (Clanchy 1970, 1979, Wormald 1977) will be our starting point .

Relationship between Documents and Artefacts

I have elsewhere written on the special demands which the study of an historical society presents to the historical

archaeologist. At some length I argued that documents by virtue of their genesis in the human mind and execution by the human hand shared a number of properties with other tools, which we comfortably characterize as material culture, like houses, pottery and fields (Driscoll 1987a). I went on to suggest that these properties required that we consider documents as material culture and include them in our archaeological analysis. There is little point in repeating these arguments in detail, here I will summarize the essential points and amplify those which have direct bearing on this study.

Starting from the idealized goal of wishing to write an history of the development of Pictish Strathearn which attempts to account for all bands of the social spectrum, I have adopted several key concepts as guides to my analysis. First, within any society there exist systems of thought, which structure all cultural behaviour and which govern the patterning we observe in the material record. Deetz (1977) has shown that within a single society this cuts across a wide range of social categories and material culture types. Further, he has argued that these structuring principles, which he sees as directly analogous to a grammar (1967), not only govern form in material culture but also changes in form. What Deetz offers is a very promising, if mysterious method for the analysis of material culture (Leone 1982:742-4). Henry Glassie however is the most important advocate of such 'structuralist' analysis of material culture. He has provided the necessary theoretical support for the 'generative grammar' approach to material culture (1977) as well as the most satisfactory empirical application (1975). Glassie's remarkable analysis of folkhousing has received much critical attention (cf.

Deetz 1977, Leone 1982, Wiley 1982) for the facility with which he relates house form to changing social conditions. One of the most important accomplishments of his work has been the use of artefacts to shed light on the values and expressions of people who would otherwise be historically invisible due to documentary lacunae. A second point to note in Glassie's work is the active role that material culture objects play in shaping social relations. This second point serves as the origin for the ethnoarchaeological studies of Hodder and his students (1982a). Their work, inspirational as it is, has not yet successfully progressed into the analysis of past societies, but they do provide a number of instances in non-capitalist societies of material culture items playing central roles in the negotiation of social relations. The conceptual apparatus they employ to interpret these social transactions varies widely (cf. Hodder 1982a, Miller and Tilly 1984) and it has been John Barrett (not a Hodder student) who has offered the most coherent analytical framework for the sort of 'contextual archaeology' advocated by Glassie and Hodder both of whom have the benefit of detailed contemporary texts or observational field notes.

Barrett (n.d.) introduces the term field of discourse to link social reproduction with its material residue. Field of discourse describes the context of social reproduction: the social actors present and the material conditions which prevail; discourse is a general term for the range of verbal and non-verbal exchanges which take place. An example Barrett likes to draw upon to explain the term comes from western institutional education, an element of which is reproduced during the lecture. Conventionally the teacher speaks from behind a desk or lectern

with a blackboard at his or her back while facing rows of seated students. The students' desks with their uniform orientation toward the lectern, serve to clarify the roles of lecturer and student, speaker and listener, giver and taker. The material culture (lectern, desks, blackboard) and their organization are essential ingredients in the blend of cultural resources which are drawn upon to construct this specific form of western education. The legacy of the lecture is revealed in the surviving material conditions: the key words and diagrams which punctuated the lecture may remain on the board, desks which have been used may be slightly askew, and very likely comments scribbled on the desk tops will record dissent or boredom. If the desks have been drawn into a circle we know immediately that a 'lecture' has not occurred, but something like a 'structured discussion'. The main point to recognize is the recursive nature of the relationship between the discourse and the meanings embodied in the material culture. It is the continual reuse of the funny desks with the built-in writing surfaces, oriented toward the blackboard, which provides them with the collective meaning of 'classroom' or 'lecture theatre', while at the same time the arrangement conditions the behaviour which occurs in the classroom. When we turn to look at the archaeological record, it will be important to recall how the surviving material conditions of the discourse acquired their meanings. That this sort of approach can contribute to historical analysis is perhaps best demonstrated in Foucault's Discipline and Punish and in Markus' Order in Space and Society (1982). Both of these scholars are particularly concerned with the relationship between architectural forms and their social consequences, and are quite explicit about how

power relations are embodied in architecture.

To summarize, I am arguing that material culture actively contributes to the process of social reproduction, not simply by providing the means to recreate the material surroundings, but by providing the conceptual apparatus and expressive media for negotiating social relations: a process, which as we have seen, tends to produce conventionalized responses or roles, like student and teacher. Throughout the body of this thesis I intend to illustrate the analytical strength of this stance. One of the immediate benefits of this position is that it provides a way of handling documents which does not isolate them from the remainder of material culture and which contributes to our attempts to 'read' non-literary material objects. A technological treatment of documents begins with the unsurprizing observation that documents are a particular means of negotiating social relations: writing is a practice which, like activities such as house building, has the capacity to shape social behaviour. Not only through the content of the document but by establishing social roles of scribe, reader, writer, those who have control and knowledge, who are to be contrasted with the illiterate. The latter can recognize writing but are powerless to interpret the letters. For the Early Medieval illiterate, writing symbolized power-laden knowledge. This approach serves to remind us, that just as the products of labour and natural resources may be asymetrically distributed, so too access to cultural resources may be asymmetrical (Giddens 1979). Additionally, not all discourse pertains to all aspects of social existence: thus for the fullest possible picture the material culture record must be conceived of as a series of overlapping, complementary

discourses. Writing is a discourse appropriate to certain social contexts, which as Clanchy has shown for Medieval England were confined to narrow religious, legal and administrative fields until well after the Norman Conguest (1979). For the Picts we will have to determine the appropriate context of writing for ourselves.

Glassie has demonstrated that architecture contains another discourse, which while restricted in its range of expression none the less figures prominently in the social life of the residents and their community. Generally speaking the expressions embodied in architecture concern attempts to define domestic social relations, to mediate social relations between the inhabitants and their neighbours and to mediate relations between the inhabitants and the natural world. For the Picts, aspects of this social control are clearly apparent in the monumental architecture of the hillforts; we have little else which may be firmly called Pictish architecture. Pictish period houses from Orkney (Ritchie 1977) and the Udal, North Uist (Crawford and Switsur 1977) so strongly reflect local environmental conditions and available resources that they cannot be taken as general guides to Pictish housing and much less as typical of Pictish lowland architecture. For the moment, we must assume that the domestic architecture of lowland Picts was similar to the better known architecture of the later Iron Age in South-east Scotland (see Harding 1982). The erection of carved stone monuments and the reuse of ancient religious sites are further distinct fields of discourse, which will have their own realms of social importance. Before moving on to discuss these various fields of discourse in Pictish Strathearn, we must first consider the

archaeological and documentary sources, the material residues which define the fields of discourse.

Material Sources: Documents

A.A.M. Duncan believes that 'the critical evaluation of sources for early Scottish history is nowhere more difficult than in the annals, genealogies and law books written in Medieval Ireland ...' (1975:41) and yet these are essential sources for Pictish history. Not only do they provide the outline of Pictish history, we are also dependent on the Irish material for clues about the structure of Pictish society. Clearly there can be no justification for a wholesale transposition of the Irish lawyer's social scheme to Pictland, and we must certainly be wary of projecting Irish cultural categories on to the Picts, but if we are to understand the Picts at all it will be as Celts through their shared cultural inheritance with the Irish and British. In this respect Kenneth Jackson's (1955, 1980) linguistic arguments in favour of a hybrid Celtic/Pre-Celtic society are both unconvincing, because of our near total ignorance of the Pictish tongue, and beside the point, since all our historical sources of any substance were either composed by neighbouring Celts or by people who had come to live among Celts. The actions of historic Picts are thus only intelligible as the actions of people operating within a cultural framework which we today describe as Celtic. As will become apparent there is no means of distinguishing the Celtic from the Pre-celtic components in the material culture. We are therefore obliged with Alfred Smyth (1984:44-54) and Alcock (1987c) to recognize the Picts as Celts,

for all the term's analytical limitations.

Both the Irish and the Northumbrian perspectives on Pictland were foreign, but they were familiar. Unfortunately the English chroniclers, hagiographers and historians rarely had cause to dwell on their northern British neighbours. Despite those few well known instances of direct contact such as Egfrith's assault in AD 685 or Nechtan and Coelfrith's correspondence, the Picts who appear in English texts serve all too often as paragons of remoteness as in Bede's account of Cuthbert's evangelizing mission to the Niduari Picts (VC ch.11). Our uncertainty with the origins and reliability of Bede's knowledge of the Picts (cf. Duncan 1981) is a distinct handicap. Hunter-Blair's (1954) account of the history of Bernician-Pictish relations indicates just how little is known about the fluctuations in the relationship, which include episodes of dynastic alliance (Miller 1978) and bloody military campaigns (Wainwright 1948). Patchiness aside, the English testimony is crucial, because English influences are readily apparent in Pictish culture. It is, for instance, possible to discern strong English influences in the decorative arts, principally in sculpture (cf. Stevenson 1955, 1970 and Henderson 1967). More importantly for us, there are strong similarities between early Nothumbrian social and administrative institutions and those pre-feudal Scotland (Barrow 1973).

Ultimately our dependence on what must be regarded as external sources reflects the poverty of the early historic records of Scotland. In answering the question 'where are the writings of early Scotland?' Kathleen Hughes rejected the two traditional explanations: neither Edward I nor John Knox should

be held to blame for the present shortage of documentation (1980). Hughes' analysis of the sources used by later medieval and early modern historians indicated that the shortage of early medieval Scottish texts had earlier origins and she suggested that documents were never as plentiful as they were in England and Ireland. For Hughes a most important distinction can be seen between the Irish and English historical traditions during the Norman era and the contemporary activities in Scotland. By the mid-twelfth century at a time when a monastic renaissance was encouraging Irish monks to copy early manuscripts (Hughes 1980:15) and English clerics were attempting to salvage some of the Anglo-Saxon past in the face of Norman disregard for their heritage (Campbell 1984), there was no comparable Scottish movement. The Scottish episcopate was already Anglo-French instead of Celtic (Duncan 1975:265). Hughes argued that few of the clergy 'would have been interested in the vernacular manuscripts, so any texts in Gaelic would have been likely to disappear through neglect' (1980:16). The form in which the so-called Scottish Chronicle now stands appears to reflect this preference for Latin (Anderson 1980). This account of the Scottish kingdom from the accession of Kenneth (843 x 848) to 995 was originally composed in Irish or Gaelic but translated into Latin in the later twelfth century (Cowan 1981: 18). It is readily understandable, if regrettable, that the Irish and Pictish representations of the past were treated as irrelevant or subversive by the newly reorganized religious establishments of Alexander I and David I. They were after all indebted to a Scottish monarchy, one which had little interest in their Pictish predecessors or in the interdynastic squabbles of their

Dal Riadic ancestors, whose names were safely preserved in the genealogies.

Within her discussion of early Scottish texts, Hughes' makes the interesting suggestion that to eighth century Picts and Scots 'the technique of a historian like Bede who critically examined his sources was incomprehensible. Legend and history were indistinguishable' (1980:20). This suggestion, which in the light of Picard's work (1982, 1984) on Adomnan's Vita Columba we must modify to except the Scots, has important implications for the ways in which we interpret other aspects of the historical record, but is especially relevant to any discussion of the political uses of writing. It remains true that we know of no Pictish Adomnan or Bede, just as it is true that the sorts of documents produced in Pictland and early Scotland (Bannerman 1974, Smyth 1972), that is lists, represent the simplest form of literate technology which Goody and Watt have identified with the earliest stages of literate society (1963). Miller's work on the Scottish pedigrees suggests that the succession of Kenneth mac Alpin required the creation of a completely new pedigree and that the Pictish records, either through decay or deliberate destruction, were lost (1980:207-8). The surviving legacy of the Pictish manuscript tradition is hardly encouraging, the King Lists being the only unambiguously Pictish texts.

In recent years M.O. Anderson (1980) and Molly Miller (1978, 1979, 1980) have done much to clarify our understanding of the Lists. The content of the Lists themselves does not provide the kind of detail with which we may construct exciting narratives. It is not even possible to identify episodes of pedigree adjustment with any confidence. Nevertheless the Lists provided

the best native testimony to the progress of literacy amongst the Picts. Although not universally accepted, Miller places 'the archival horizon of contemporary record within 662 x 668, [and] the historical horizon of exact memory at 526.... The archival horizon agrees well with the placing of the corresponding horizon at Iona within 669 x 679. The claimed historical horizon compares with the Bernician claim for 547 and the Gwynedd claim for 534: all three fall within Gildas' adult lifetime' (1979:11). Whatever the reasons for the scarcity of the Pictish documents it was not because they were slow off the mark; rather it must reflect on the development of the Pictish church, the political climate and, as Hughes suggests, Pictish intellectual outlook at the time of the Scottish succession in the ninth century. Except for the King Lists there are few texts which show any Pictish predecessors. A contemporary Pictish hagiography hardly exists (Boyle 1981, MacQueen 1980), there are no Pictish law tracts and M.O. Anderson is reluctant to postulate a Pictish annalistic tradition (1980:19). Yet we can with varying degrees of confidence identify Pictish ecclesiastical centres: Abernethy, Brechin, Culross, Deer, Dunblane, Dunkeld, Forteviot, Muthill and Kinrimund (later St. Andrews). From this religious milieu come two crucial texts which may be described as reflecting a Picto-Scottish cultural tradition: the already mentioned Scottish Chronicle which probably derives from southern Pictland, quite possibly Fortriu (Cowan 1981: 8-9) and the Gaelic notes in the Book of Deer (Jackson 1972). Wendy Davies has suggested that references in a version of the Pictish King Lists to the foundation of Abernethy and the Gaelic notes in the Book of Deer represent the remains of a charter tradition common to the Celtic west (1982b:273),

although some Scottish historians remain sceptical. Although written in Irish, the Deer commentary is an invaluable aid to pre-feudal land tenure practices and social organization. Indeed the Book of Deer provides the best justification for believing that the prevalent social institutions in Pictland resembled those in contemporary Ireland closely enough to warrant comparison, and the text must be treated as the starting place for any discussion of Pictish social structure as Duncan notes (1975:110-11). A fuller discussion of the notes and the book is to found in Appendix II.

A significant body of evidence for the early historic period derives from later medieval sources and sources for which we lack any means of precise dating. The best example of the undatable variety is place-names, which are a tantalizingly elusive sort of historic testimony, in that their meaning and form have the capacity to suggest everything and resolve nothing. For Scotland this is particularly the case owing to the scarcity of early attested forms. For example, no more than a small fraction of pit- names can be provided with a medieval antecedent (Nicolaisen 1976). This lack of early documentation has not prevented modern scholars from devising ingenious ways of analysing their distribution and speculating on their significance. Indeed it is their distribution which in the absence of contemporary records or archaeological investigations has contributed the most to the habit of using pit- names as markers of Pictish settlement (Wainwright 1955:36-7, 44-6). Almost without exception general discussions of Pictish history are illustrated by a map of Scotland with a familiar scattering of dots in the northeast which denotes the pit- places. The conclusion to be drawn from

such displays, whether or not it is intended, is that people have remained in more or less the same place for the last 1000-2000 years and that what was once good farmland remains attractive. To get beyond the geographical perspective and its implied continuity, requires that we grasp at the social meaning of the early place-names, obscure though they may be.

G.W.S. Barrow has shown that it is possible to give the spots on a map historical meanings by providing them with a social context drawn ultimately from later medieval charters (1973:7-67). None of the charters are Pictish, indeed the earliest Scottish charters begin in the later eleventh century; but as in the case of the Gaelic notes in the Book of Deer, it is thought that the patterns of land tenure and the obligations of clientage changed only slowly. Thus, as we will see, Barrow postulates the existence of well developed systems of land tenure and administration, which imply a high degree of political control. While most scholars would now agree that the early historic agrarian economy was systematically ordered, it is difficult to identify chronological development in such a system which is characterized by its persistent resistance to change. One possible avenue was outlined in the 1985 Rhind lectures, where Barrow, expanding on the work he has done on identifying early church sites from place-names (1973, 1983), indicated the possibility that rough chronological distinctions might be discerned in the place-names of Fife and Angus. Exploring the history of these 'timeless' tenurial rights and obligations must be granted a high priority, since in agrarian societies it is in these realms that relations of power were established and negotiated on a daily and seasonal basis. Yet it is one which we

are singularly ill equipped to investigate.

I wish to make a final point with particular reference to the interpretation of this slightly later documentary evidence. Clearly I cannot hope to pass critical judgement on the work of historical scholars like Barrow, Duncan and Jackson; I have not the expertise. But as my theoretical outlook differs significantly from theirs, so will I have arrived at new interpretations of their work. In addition the archaeology, of which they have no critical knowledge, does at times suggest new and different interpretations of historical sources. Taken as a whole the image of the Picts furnished by the documentary evidence is indicative of a society which was 'barbarian' in terms of the ways in which literacy was employed, but which was not unsophisticated in political and social organization. This complexity is mirrored in the archaeological record, and in the coming chapters the goal is to provide a more complete picture of Pictish society than either the historian or the archaeologist working alone possibly could.

Material Sources: Archaeology

Of the material remains of the landscape the upstanding field monuments, principally hillforts and sculptured stones, are of greatest importance. They have been known in detail to several generations of scholars following the contributions of Joseph Anderson, David Christison and Romilly Allen, all of whom worked around the turn of the last century. In the absence of any more recent studies, Christison's work on Early Fortifications in Scotland (1898) with later additions (1900) remains the best

survey of the monumental earthen and stone enclosures of the Iron Age and early historic period. Over the years Christison's ambitious efforts towards describing and classifying Scotland's hillforts have required updating and supplementation, tasks which were undertaken largely by the Ordnance Survey. In addition, the Marginal Lands Survey (MLS) conducted by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) in the mid-1950's produced some high quality plans of upland sites, but like the Ordnance Survey record cards, this material remains largely unpublished, and exists only in the archives of the National Monument Record. Still more recently John Sherriff undertook a study of the hillforts of Strathearn as a B.A. thesis at U.C. Cardiff (1978). Despite the value of this more recent work, Christison's contribution remains unsurpassed for three reasons. First he attempted to locate these sites in a regional context; only Sherriff has also attempted this. Second, his work is far more accessible than that of any of his followers and thus provides the most convenient entry into the subject, and third a number of his sites have disappeared or have appreciably deteriorated in the last eighty-five years (eg. Sherriff 1984, Close-Brooks n.d.). These positive points aside, all the studies of Strathearn's hillforts are to a greater or lesser extent flawed by an overemphasis on tactical military interpretations. Until the recent acquisition of radiocarbon dates (MacKie 1976) the forts were seen largely in terms of a response to the Roman invasions. Our greater, although still vague, chronological control means that mechanical classificatory schemes such as those employed in the RCHAMS Inventories which are arbitrarily based upon enclosed area (Nieke 1984) or the use of vitrification

as a 'cultural indicator' (Feachem 1966) must be modified. These are among the problems which will be considered in Section III, where the field evidence for settlement will be considered.

In many ways the work of Allen and Anderson on the Early Christian Monuments of Scotland (1903) (ECMS) remains even less tarnished by the years than that of Christison. Of course, many new discoveries have been made since it was published, but this new information must be weighed against the information recorded in the drawings and photographs which has been lost during the years of Scottish weather. More importantly, there is still no replacement corpus, nor are there any real alternatives to their classification scheme. The fundamental problem with the classification is that it treats the area of modern Scotland as though it constituted a single cultural unit during the early middle ages, thus playing down important regional distinctions which are apparent in the sculptural traditions. The importance of the carved stone monuments, symbol stones and crosses for the study of Early Historic society cannot be over stressed. In the absence of conventional literate expressions, these must be seen as the Pictish archive: the repository of learned knowledge about Pictish society. Unfortunately, it is beyond the scope of this study to examine even the score of stones and fragments from Strathearn: for brief comments on the social and political significance of some of the Strathearn stones and their Southern Pictish context see Driscoll 1987a & 1987b.

The sculptured stones constitute only one (though by far the most frequently travelled) of the avenues to understanding Pictish religion and ceremonialism. Strathearn is rich in early church fabric: Abernethy possesses one of the two Scottish round

towers; three of the six or seven early square towers are found at Dunning, Muthill and Dunblane (Donaldson 1974, 1985), and a possible royal chapel is implied by the Forteviot arch (Alcock 1982). The dating of these structures has proved difficult, and it is only recently that the weight of scholarly opinion has settled for dates just after the period of this study. Even the towers at Restenneth and St. Andrews, long believed to be Pictish must now be considered to date to the eleventh or even twelfth century (Fernie n.d.). However, these buildings serve as a valuable guide to the prosperity of religious foundations for which we have some documentation, since it must be assumed that they mark the most powerful establishments and that such establishments do not spring up over night. In addition to these eminently Christian sites, there is increasing evidence that some prehistoric ritual complexes developed into ceremonial sites of regional importance during the Early Historic period. The best known of these are Tara and Emain Macha in Ireland (Wailes 1982), and the Kilmartin-Dunadd area in Argyll: to these we should now add Forteviot (St.Joseph 1978, Alcock 1982) and other places, on the strength of aerial photographic evidence.

The interpretation of aerial photographs is a tentative and hypothetical exercise; crop-marks being more akin to unexcavated standing monuments than to the excavated plans which they superficially resemble. In both instances relatively simple or vague features mask layers of architectural complexity. This is in no way to diminish the value of aerial photography, which has emerged as the most powerful technique of archaeological discovery we now possess. The most important new body of evidence which this study introduces to Pictish archaeology is the growing

collection of aerial photographs of cropmark sites on the rich valley bottoms, where previously place-names were almost our only index of settlement. Cropmark sites are distributed in a non-random, non-representative way, since geological and climatic factors strongly constrain their production. In addition when unexcavated, they are difficult to date except in the broadest terms. None the less these data are essential if we are to move towards an improved understanding of later prehistoric and early historic settlement. The limitations and potential of aerial photography will be considered in conjunction with the standing monuments in Section III. The inability to detect clear and unambiguous distinctions between prehistoric and Pictish sites is not of course a problem confined to cropmarks. The scarcity of excavation relegates all ascription of date and function of unexcavated sites to speculation.

In recent years the situation has vastly improved. The campaign to investigate Early Historic fortification in Scotland led Alcock in 1976 and 1977 to dig at Dundurn. This knoll, which surveys the western outlet of the valley, was the first site of the Pictish period to be both documented and excavated. At the opposite end of Strathearn the recent reappraisal of the 1950s rescue excavation at Clatchard Craig provides evidence for another Pictish centre of regional importance. Together these two sites combine to make the valley one of the best known areas for the Pictish period. It is this excavated material which provides the essential contextual data to begin interpreting political and economic structures.

Landscape and Society

Having already outlined the geographical and chronological scope of this work I feel obliged to conclude this chapter with some comments about the relationship between the valley and its inhabitants. It seems important to be clear about what I mean by 'Pictish society', since I plan to analyse the landscape as a social construct. I believe that taken together the scattering of farms, forts, churches and ceremonial centres represent more than a spatial manifestation of social relations, and that they should be regarded as forming a cognitive model of society.

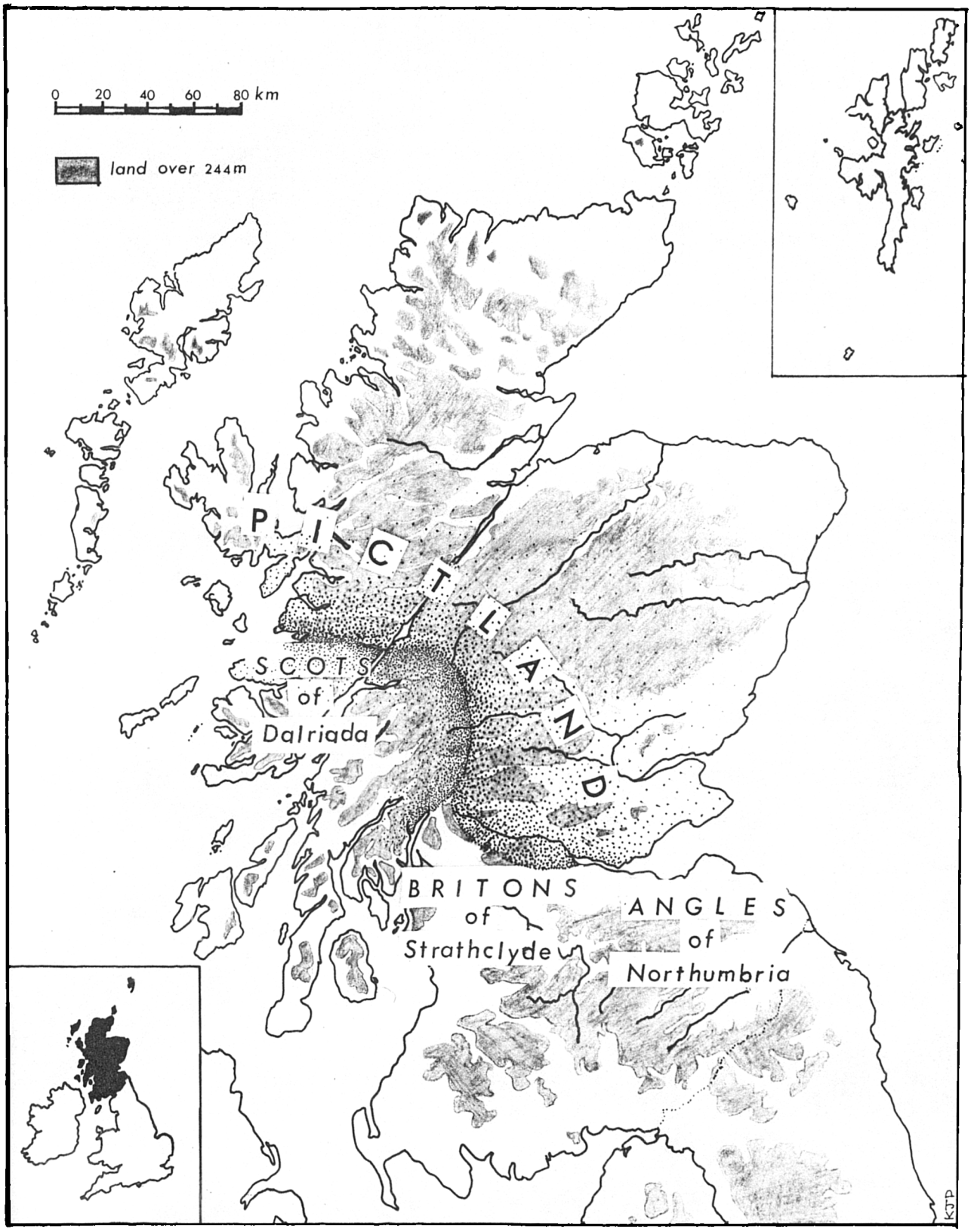
First I wish to distance myself from the position which maintains that the Picts represent some sort of admixture of P-Celtic speakers and pre-Celts. Jackson's discussion of the Pictish tongue (1955,1980) coupled with the widely held belief that matrilineal descent represents some sort of primitive survival (e.g. Henderson 1967:31-3), encourages the acceptance of this romantic notion of a pristine native culture surviving beyond the fringe of the Roman Empire. I have already expressed my reservations about arguments adduced from Pictish linguistics, and I tend to agree with O'Rahailly when he says that the differing opinions on the Pictish language tend to cancel each other out (1946:375 n.1). Here I would like to add some archaeological and anthropological observations. The entire concept of the survival of pre-Celtic peoples presupposes that we could distinguish a series of invasions in the archaeological record. This is a problem of both method and evidence, which Champion confronts solidly in his discussion of the Irish invasions (1981). Contrary to Jackson's assertion (1980:175) the

rejection of the invasion hypothesis is no passing fancy, but reflects theoretical advances in archaeological studies of material culture, which include discarding the Childean view of culture, which maintained that a distinctive artefact assemblage was sufficient to identify ethnicity. Scientific dating methods have also contributed to the rejection of the invasion hypothesis by providing far finer prehistoric chronologies, ones which are independent of material culture typologies (cf. Renfrew 1973). The only uncontroversial invasion which we may identify in prehistoric Scotland is the arrival of Mesolithic hunters and gatherers following the last glaciation. Previously designated cultural watersheds like the introduction of agriculture, bronze and iron can now be seen to have been protracted developments which took place over several centuries and need not have involved any appreciable population shifts. Hypothetical pockets of pre-Celtic speakers must now be consigned to the same category as Beaker Folk, that of the obsolete analytical term. If radical culture change involving change in subsistence methods, as with the Neolithic, can occur without population change, then it should be equally possible to theorize about linguistic change occurring without resorting to major migrations. Within the confines of this study I see a pressing need to rethink the invasionist explanation of linguistic change from Pictish to Gaelic which apparently occurred in Eastern Scotland during the first millennium AD and to shift the attention of inquiry towards political and ideological mechanisms of change and away from the demographic explanation. In this respect it is interesting that Wainwright (1955:48) followed Watson in stressing that the process of Gaelicizing eastern

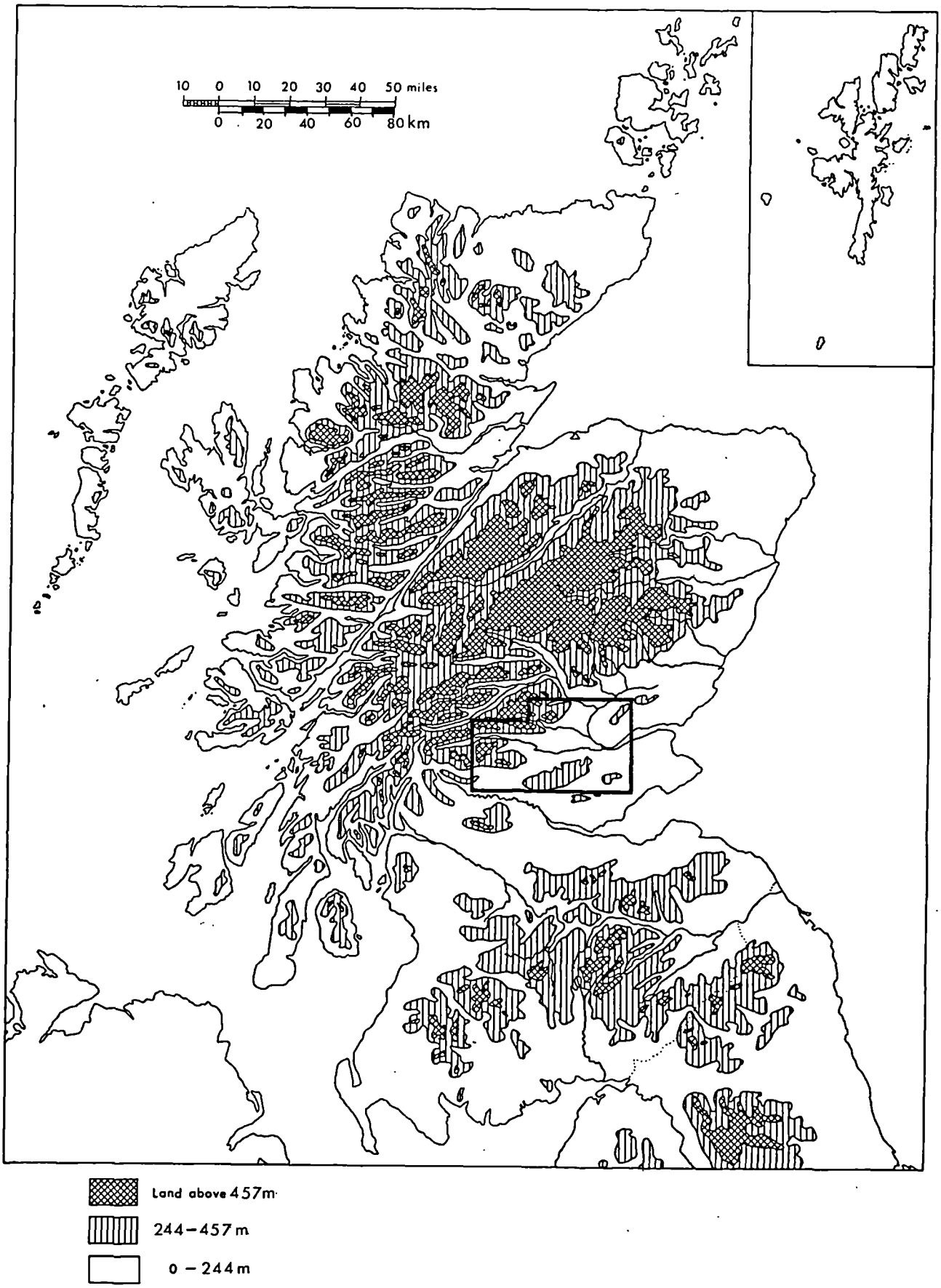
Scotland was a long term development, one which pre-dated Kenneth mac Alpin and continued for generations afterwards. With these thoughts in mind it is gratifying that scholars like Smyth (1984) and Alcock (1987c) have sought to bury the romantic school of Pictish studies and to treat the Picts as typical Celts unless shown otherwise. Such a position is of course necessary if our study of Pictish history is to have any social content, since we must to some extent look to the neighbours of the Picts for the knowledge of early historic society. As noted above, unsatisfactory though this position is in terms of masking local variability, the available sources will allow us no other approach.

Of all the Celtic peoples, we think we know most about the social organization of the Irish. Indeed, so clearly do historians write of early Irish society (cf. Dillon 1954, Dillon and Chadwick 1967, Ó Corráin 1972) and so richly is that society endowed with illustrative myth (Aitchison 1987), that it has proved irresistible to archaeologists of the British Iron Age. Hamilton's direct application of early Irish mythic literature to interpret the Shetland Iron Age (1968), Cunliffe's casual evocation of Irish heroic society to animate Danebury (1984) and D.L. Clark's importation of Irish social categories into Glastonbury (1972) all serve to devalue the local historical experiences unique to each area as well as blending various Celtic traditions into a murky unity. In an effort to avoid this, I plan to draw on the general organizational principles which underlie Celtic social institutions and proceed from these to construct a framework for understanding Pictish society. I take this to be the reverse of the practice of Hamilton, Cunliffe,

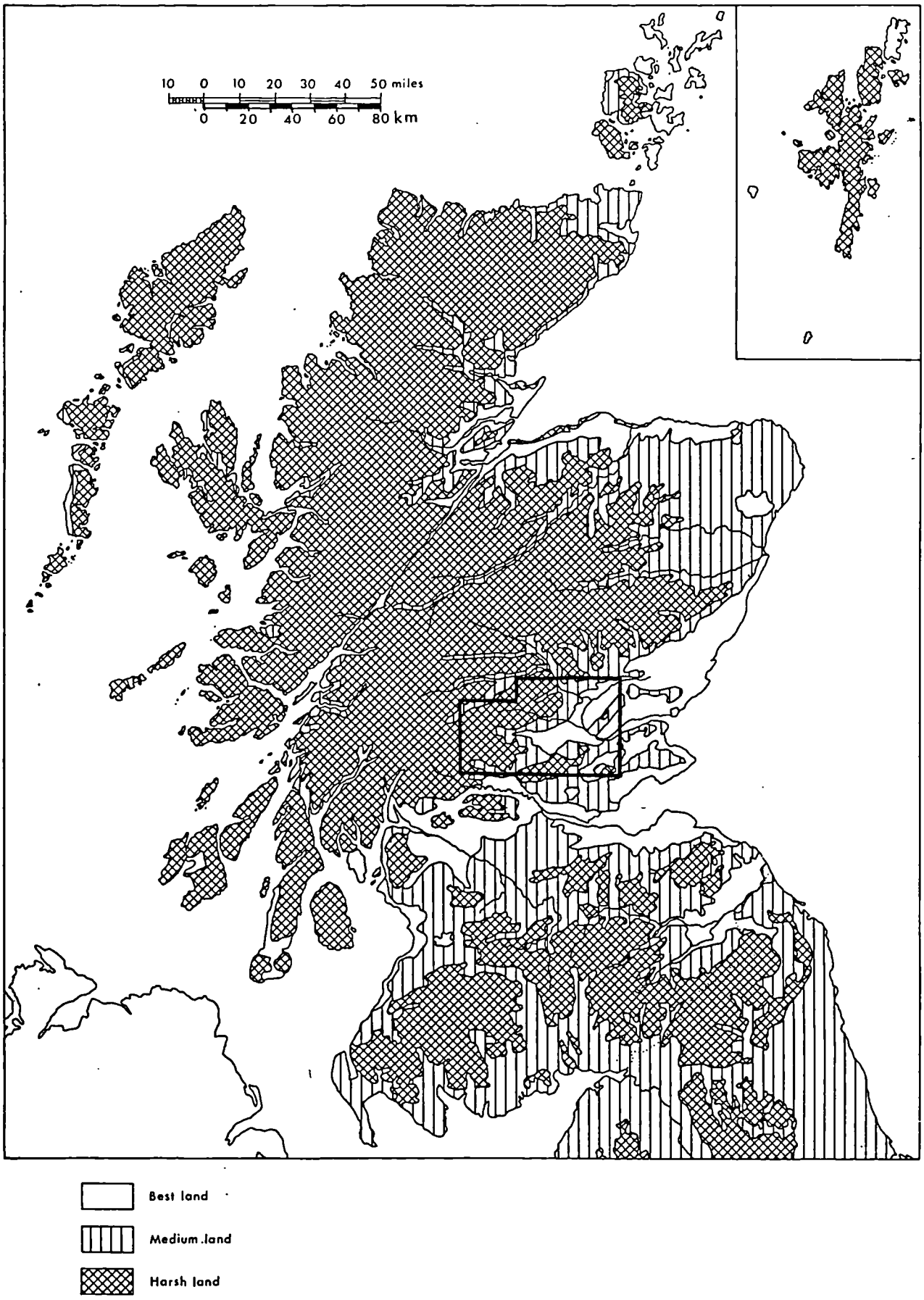
Clark and others who appropriate convenient details and apply them across many miles and decades, in the end producing a homogeneous Celtic society. The details of my view of Pictish society will emerge as the study progresses.



1.1 Scotland c. 600 AD



1.2 Scotland's Physical Geography. Boxed area shows coverage of detailed distribution maps (figures 3.1, 3.19, 3.22, 4.1 & 4.2) (after MacNeill and Nicholson 1975).



1.3 Simplified Presentation of Land Use Capability Survey for Scotland. Boxed area shows coverage of detailed distribution maps (figures 3.1, 3.19, 4.1 & 4.2) (after MacNeill and Nicholson 1975).

SECTION II:

Reproducing Social Relations

Chapter 4

Structures of the Long Run:

Material Circumstances of Social Reproduction

The subject of this thesis is an historic landscape, but the object of the thesis is to learn about the people who inhabited it and made it. Ideally, through an understanding of the conditions they experienced and of their responses to those conditions we can learn of the social and political developments, which helped to transform this Pictish heartland into the Scottish state. In order for this study to approach its objective, in order for it to transcend the simple description of archaeological features, we require a social context in which to situate the archaeological evidence. The purpose of this section is to provide that context. It goes without saying that providing any sort of commentary on Pictish society is at best a difficult task. The state of Pictish studies is such that serious social analysis is rarely undertaken because it is generally regarded as being historically irretrievable, and as a result writing about Pictish society is left to the historically innocent. This section begins the long overdue task of synthesizing an account of Pictish society from the available historical and archaeological resources; it is selective and speculative, but this is unavoidable. It is selective in its geographic focus on Southern Pictland and in its attention to the economic issues raised by the agricultural practices which prevailed there. In what follows I will argue that the social relations governing the control of agricultural, labour and military resources may be analysed as the products of two interconnected principles of social organization: kinship and clientage. The immediate goal of

the analysis is to allow us to propose social values for the material remains which constitute the archaeological record and to explain the patterns of circulation of material goods which are recorded in later documents. We are, in effect, seeking to develop an understanding of the social system, which is equally capable of shedding light on the building of hillforts, the manufacturing of Pictish brooches and the circulation of agricultural produce. Most people who have considered these matters have started with the forts and brooches; we will start with the food.

Chapter 5, the first step, is a straightforward discussion of the environmental conditions which prevail in Strathearn and of the available natural resources. It is representative of much of Southern Pictland. The second, equally fundamental, step, Chapter 6, is to assess the nature of the agricultural regime, again primarily by archaeological evidence, but also by noting the traditional agrarian practices of the region. There is mounting evidence for continuous agricultural activity in eastern Scotland beginning in the third millennium BC, and it seems reasonable to include the Picts within this agrarian tradition. Indeed, it is possible to suggest, without fear of contradiction, that agrarian concerns dominated the Pictish economy as they did elsewhere in early medieval Europe. Ancient pollen, fossil seeds, animal bones and field systems, provide the direct evidence of agricultural practices, which, while constantly increasing, is not as yet abundant (cf. Fowler 1981, Mercer 1981). To this may be cautiously added the contributions of folklife scholars of traditional Scottish agriculture (Grant 1961, Fenton 1976) and the more theoretical work of agricultural historians (Whittington

1973, Dodgshon 1980a, 1980b). The growing body of settlement-archaeology studies provides indirect but revealing insights into past agricultural practices especially with respect to the social relations of production. The micro-topography of farmsteads, the arrangements of fences, ditches, and buildings reflects the organization of the 'domestic mode of production' as Sahlins terms it (1974), while the topography of the farms in the landscape may reflect the organization of production at a more extensive, regional level. At the household level most of our information comes from excavated sites, while the integration of sites into a landscape draws upon the upstanding monuments and the aerial photographic record. In addition, such a landscape model may be supplemented by interpretations of documentary and place-name material, and it is in this context that the historical work on early medieval land tenure is important.

One of the most elusive qualities in any landscape study is animation, which is needed as a safeguard against drawing a static image of the timeless, changeless countryside. During our period it seems that social and political relations are becoming more highly structured, and yet such change takes place within an economic environment lacking the revolutionary changes in the technical means of production. Or at least we can not identify such changes unambiguously in the archaeological record, in the way we can see the advent of the Neolithic or the coming of industrialism. One source of change seems to have been the development of the proto-feudal institution of clientage at the expense of traditional kin-based forms of social organization. It would appear that the development of the administrative institutions associated with pett places and the pre-feudal

thanages were the political result of this change in social orientation. Obviously any discussion of the organization of settlement must follow presentation of the empirical information of excavation, field survey and aerial photography, which is contained in Section III.

Of course, economic forces extend beyond the farmstead and the principles of clientage and kinship also structured the organization of skilled craft production, the 'communal' labour for constructing 'public works' (like forts), and the mobilization of military expeditions. In addition we must suppose that commercial activities, both long distance and regional exchange networks, were closely regulated by the ruling elite. Hodges touched upon such systems of commercial control in Dark Age Economics (1982), but found the evidence for the Celtic west too patchy to generalize from. In order to approach an understanding of the entire economic system an awareness of the differences between commercial transactions and those governed by clientship is necessary. Hodges' failure here is not entirely due to the quality of the evidence, for although he rightly argues that economic relations are embedded in social relations, he did not have the firm grasp of those social relations needed in order to apply them to the available evidence.

Clientship grows out of relations of kinship and is not always distinguishable from it. Our knowledge of these two social institutions is largely circumscribed by their relation to land tenure, so the two institutions are considered together in Chapter 7. At the outset it is as well to admit that our knowledge of Pictish social institutions stems from oblique contemporary references, later documents and and the analogies

suggested by comparison with common social traits found in British, Irish and Anglo-Saxon society. This means that, at a general level, we must confront the question: how different were the Picts from their neighbours? Traditionally the answer has been: very different. But this is changing and they are being increasingly regarded as belonging to the mainstream of early medieval Britian (e.g. Alcock 1987c, Smyth 1984, Davies 1984). One of the main obstacles to this rapproachment has been the peculiar Pictish descent system.

Most discussions of Pictish society never get much beyond the vexed question of Pictish matrilinearity, an issue which is largely irrelevant to our concerns and which is probably unsolvable. It is irrelevant, because no one yet has identified the archaeological correlates of matrilocal residence patterns, let alone those of descent rules (Deetz 1965, Hill 1970, Longacre 1964, Hodder 1982b:128-32). More importantly, it is irrelevant, because of the tendency to confuse matrilineal with matriarchical. There is absolutely no evidence to suggest that Pictish society was anything other than patriarchical, that is dominated by men. We lack even the single name of a Pictish woman, and for every prominent representation of a female, like that on the Hilton of Cadboll cross-slab (Wainwright 1955, plate 9), there must be at least ten representations of prominent men. This is not to say that women were unimportant in Pictish society, but it is to recognize that we can not identify their particular social roles. That the matrilineal question is irresolvable is evident from the ability of the best available genealogical evidence, the Pictish King Lists, to sustain two equally plausible , but contradictory explanations (eg. Anderson

1980 and Miller 1982 vs. Smyth 1984). Elsewhere I have dealt with other limitations on the study of Pictish ethnography (Driscoll 1985), but for our purposes there is no reason to consider this issue further, since we cannot be sure that matrilineal descent was practised and even if it was, it is not clear how it would affect our understanding of the relationship between kinship and land tenure.

It is in the context of land tenure that kinship is of importance to us. It may be objected that such a discussion is as pointless as the debates on matriliny. That would be true if we were dredging through the ethnographies to find a specific set of cultural practices which we were to offer as a ready-made explanation of the empirical evidence (cf. Jackson 1971). However, the object of this discussion is to search for the general principles which bound together British and Irish society and which are therefore likely to have prevailed in Pictland. The point is that we are not seeking to attribute any particular Irish or British practices to the Picts, but rather to seek the common social and cultural threads running through early medieval Britain and Ireland. This is not in fact a radical position, although few people have ventured outside of their cultural-historical pigeon-holes to embrace it. Arthur's Britain was the first major synthesis to cut across British and Anglo-Saxon boundaries, but more recently Patrick Wormald has suggested that we might extend our boundaries even further:

> we are increasingly aware of the similarities and parallels between the various societies...all of whom ultimately shared in the more or less traumatic experience of "Normanization". This makes it both possible and profitable to consider the social history of Britain and Ireland, "Germans" and "Celts", in the early Middle Ages, as a whole (1985b:81, my emphasis).

The major profit of adopting this position for our purposes is that it allows us to establish the nature of the link between land tenure, lordship (or clientage) and the dominance of the kindred (Charles-Edwards 1972).

The consideration of clientage in Pictland is if anything more pressing than the study of kinship, since it is clearly not possible to explain the growth and development of kingdoms into states strictly in terms of expanding kin relations (Driscoll 1987b). Clientship as a concept is relatively straightforward: I will use the term to describe ' a voluntary tie of personal dependence in which the social superior provides military protection, legal support and productive goods in return for attendance in his retinue or war band and a flow of goods or labour services from the inferior' (Gerriets 1983:43). In practice, of course, a whole range of political strategies based in part on kin ties would be open to the participants. Societies in which clientage is the principal means of structuring productive relations are considered by some to be in the feudal mode of production (Anderson 1974). This usage is to be distinguished from the more restricted use of feudalism to describe western Europe in the high Middle Ages, which is only a specific instance of this mode of production. As Gerriets and others have made clear, the lords treated their capital resources (livestock, arable and pasture) as a form of investment which they dispensed to their clients in return for which they expected to realise a capital gain in addition to various social dividends (Ó Corráin 1972:43, Mac Niocaill 1981). I think the 'voluntary' quality of the lord-client relationship is a matter for investigation; as is well known 'protection' as a description

of economic relations can take on a range of meanings some of which are indistinguishable from coercion. The actual circumstances under which clientage was entered into must also have been heavily circumscribed by the pre-existing kin relations. It does not need emphasizing that kin relations dominated the small scale rural societies of the Celtic west; it could hardly be otherwise. Melia in showing just how the metaphor of kinship permeated the Old Irish legal expressions reminds us that the economic and political relations were structured like kin relations along patriarchical lines (1982). It is clear that we cannot use the knowledge of Irish or English society to impute the existence of specific phenomena, but we are, I think, entitled to employ such knowledge to understand the prevailing social conditions which led to the development of the more extensive political systems which we term kingdoms. A point which perhaps does not need stressing is that the network of kin relations and the system of clientage were the organizational underpinning of a landed aristocracy. And if we are permitted to extrapolate from Ireland and England, the social system was multi-tiered with great lords having many clients and these aristocratic clients in turn having clients of their own, 'freemen', who themselves had dependents (Wormald 1985b).

The final stage in this analysis, Chapter 8, is a synthesis of the various lines of investigation into an economic model. It will be seen in the intervening chapters that transactions involving material items played a central role in the formation and maintenance of social relationships. From this observation and comparison with the archaeological record, it is possible to suggest how specific goods were drawn upon to reproduce specific

social relations giving rise to different sociological categories of goods. This allows us to construct an economic model in which goods circulate in distinct spheres which are defined by social relations. The proposed model has two important benefits: first, it allows us to suggest how archaeological materials were employed in specific fields of discourse, and second, it provides a way of understanding how the various class relationships, which are well attested in the contemporary Irish and English, laws were maintained and reproduced on a daily, seasonal and annual basis.

Chapter 5

Environmental Resources and Agricultural Practices

Social reproduction begins with reproducing the material necessities of life; the study of the organization of such activities may be termed economics. In point of fact, Pictish economics does not exist, at least not in the sense of a body of theoretical knowledge, drawn from archaeological and historical sources, which purports to describe Pictish agriculture, industry and commerce. This chapter initiates the project of writing Pictish economic history, a task which I do not expect to complete. For one thing, at the moment we lack the chronological framework needed to construct a developmental sequence, for another we lack fundamental data on production and commerce. At the moment we must be content with a model of the Pictish economy constructed from physical geography, later medieval documents, folklife studies and the contemporary archaeological data. I recognize that much of what follows is speculative, but it is speculation based upon the current evidence. In any event, the purpose of reviewing the evidence relating to early agriculture is not to write an agrarian history, but rather to gain an appreciation of the factors and constraints which determined the rhythms of life and shaped Pictish society.

For most of the last six millennia the livelihood of the majority of peoples living in east central Scotland came directly from what they themselves could produce. Just when and from where this traditional, pre-industrial agriculture emerged is a matter of some debate: the landmarks of Scottish agrarian history are for the most part still shrouded in mist. Certainly Neolithic

agriculture dramatically modified the landscape, but following this colonial phase of clearance and tillage the next landmark is not at all obvious unless it be at the end of the Bronze Age climatic optimum with the subsequent soil degradation and the encroachment of blanket peat (R.T. Smith 1975, Whittington 1980). Quite possibly the Roman campaigns placed severe, if short lived, demands on the productive capacity of the inhabitants of southern Pictland, either directly through military requisition or via imperial taxation, to say nothing of the demands of provisioning native resistance. It seems that there are few changes in agricultural practice which can be directly attributed to the Roman occupation, but without the evidence of civil settlements it is impossible to assess the true extent of the impact. The final period of traditional agricultural development stretches from later prehistory to the era of the Improvements. This pre-Improvement agriculture saw the growth and expansion of particularly Scottish forms of field systems, which in our area evolved into an infield and outfield system cultivated in strips, run rig (Whittington 1973). Without wishing to imply that this last phase was one of stagnation, it will become clear that the specific patterns of medieval development are not easily discerned. None the less it is from this relatively unbroken tradition of pre-Improvement agriculture that most of what we think about Pictish agriculture derives.

Perhaps the most stable influences on Pictish economics were geological and therefore the safest starting place is with the geomorphology (Walker 1963). The Highland Boundary Fault cuts through Strathearn at Comrie and divides the valley along a

northeast-southwest axis into two distinctive geological regions. To the west the valley is narrow, the hills are steep-sided, high, rugged metamorphic schists of the Dalradian series. From these hard rocks may be extracted materials suitable for the manufacture of polished stone axes, and more relevant to us, the preferred materials for rotary querns. But agriculturally the least promising soils and climatic conditions in the valley prevail here. Various formations of Old Red Sandstone (ORS) have given the area east of the Highland Boundary Fault its softer contours and broad open spaces. The Picts recognized ORS as an easily quarried building stone and sculptural medium. The suitability of ORS as building stone is evident in a great number of the farmhouses constructed of the stone still to be seen in the valley, while the sculptures in this material become annually less visible due to its softness. Glacial action has strongly shaped the Strathearn landscape, leaving jagged peaks on the schists, rounding the ORS hills and leaving deposits of sand and gravel in gently undulating hills. The riverine gravels are the most productive areas for cropmarks, but whether this accurately reflects preference for settlement, is difficult to tell. The gravels are obviously well drained, but as we will see the early place-names, an index of settlement, are not confined to here. Unfortunately, without studying the extent of Improvement drainage it is not possible to assess the extent of poorly drained lands in former times. As might be expected, the higher hills of the western end of the valley precipitate a higher annual rainfall than occurs in the east. In fact the eastern portion receives one of the lowest rainfalls in the country, which in Scotland is a positive advantage for agriculture where

the problems with water mostly concern getting rid of it.

The Earn is not a fast flowing river, but in relatively recent times places have been found where there is sufficient fall to power mills. In addition to these mills, there is place-name evidence for the existence of mills on most of its tributaries. In shallow draft boats it is possible to navigate as far as Crieff, perhaps further. That is up to the approximate line of the Highland Boundary Fault. The larger of the tributaries, while not navigable for any distance, provided foci for settlement, independent of the Earn itself. Certainly, the narrow valleys of the southern Grampians (e.g. Glen Lednoch) and those of the northern Ochils (e.g. along the May Water) provide areas for self-contained pockets of settlement. The streams carve out sheltered glens along which modern farms cluster and which penetrate several miles into the hills, so that farmsteads in neighbouring glens can be separated by miles of moorland. We should perhaps imagine that in a pre-automobile age the neighbourhoods around a particular stream were fairly local, closed communities. It would be surprising in such circumstances if these geographic factors were not manifest in social and political groupings. However, aside from the hillforts, knowledge of the settlement patterns of the tributary valleys is limited to scant aerial photographic reconnaissance of upstanding sites. No systematic, upland survey has been conducted on the fringes of Strathearn. This is a pity as the glimpses from the aerial photographs suggest that the area is rich in field monuments.

Shaping the Environment: Ordering the Landscape

The palaeobotanical evidence quoted earlier (Caseldine 1979, 1982) suggests that the Neolithic saw a radical change in the landscape as forest and scrub were cleared to create fields and pasture. But lamentably we are in no position to estimate for any prehistoric or early historic period the portion of the landscape given over to plough, pasture, forest and moorland. The palaeobotanical studies are as yet too localized and inadequately dated. This should not however lead us to assume, because we cannot study it in detail, that Pictish land management was primitive. From elsewhere in Britain and Ireland comes evidence of sophisticated techniques dating from the Neolithic onwards. Evidence for large scale engineering projects includes the system of wooden trackways through the Somerset levels (Coles and Coles 1986), while the Iron Age drainage schemes at Claydon Pike in the Upper Thames valley (Miles 1983) represent projects of a scale which typically must be within the capabilities of a rural farming community. In Scotland, aside from the prehistoric fields and field boundaries themselves, the most dramatic evidence of landscape management are the linear earthworks which survive best in the upland areas of the Borders. Although elsewhere in Scotland such features are rare, this may to some extent represent different levels of survival. Excavation has recently shown that some of these linear features were constructed from a series of quarry pits, so that when detected as ploughed-out cropmarks they appear as pit alignments (Barber 1985). Although they are not a particularly common occurrence here, pit alignments have been observed up and down the east coast of

Scotland (Macinnes 1983) including several in Strathearn. On the basis of a single dated excavation and a frequent proximity to hillforts they appear to be a late Iron Age phenomenon (Barber 1985). Functionally they are ambiguous; they have been seen both as territorial boundaries (Barber 1985:162) and as structures for controlling the movement of livestock, especially cattle (Halliday et al 1981, Halliday 1982). Whatever their role, and they probably performed more than one, the linear earthworks do indicate that by the pre-Roman Iron Age notions of differential land usage and territoriality were being expressed in the landscape.

Linear earthworks are, of course, only the most substantial and easily identified of several possible forms of boundary, which include dry stone dykes, palisades and hedges. Dry stone dykes are not easily dated, but not surprizingly a number have been found in eastern Scottish contexts which appear to be Bronze Age or later (Harris 1984). Palisades seem to have been restricted to use around settlement sites, less substantial wooden fences were probably used for enclosing extensive areas. On the basis of palaeobotanical analysis it would seem that hedges were being used to divide a cleared landscape as early as c.100 AD in the area of the Antonine Wall (Boyd 1984a, 1984b), which is to say contemporary with the linear earthworks. All of these boundary markers express notions of differential land use and as such represent an important stage in the process of ordering the natural world into cultural categories. Not only is this order essential for a successful mixed pastoral and arable economy, but it forms the conceptual basis of more complicated infield-outfield systems.

Shaping the Environment: Plants and Animals

Just as we can postulate the existence of hedges from pollen and scraps of wood, but cannot reconstruct lines of bushes, we can identify the crops grown by the Picts, but can only hypothesize about the specific systems of crop rotation and the agricultural regime. There are no specific cereal pollens from the valley, but from Dundurn come carbonized grains of Hordeum vulgare, hulled six-row barley and Avena, an unidentifiable variety of oats. In addition, from Dundurn comes pollen of the agricultural weed Plantago lanceolata and the preserved remains of Sitophilos grain weevils (Alcock and Driscoll 1985:12). From elsewhere in the region comes evidence of a wider variety of cereals. European winter wheat, along with oats was found at the mid-first millennium bc settlement of Douglasmuir, Angus (Kendrick 1982:139). Of this range, oats followed by barley were probably the most important constituents in the diet because of a superior ability to flourish in the Scottish climate. On the basis of evidence from southern England we might expect that by the Iron Age nitrogen fixing legumes were being inserted into the rotation of cereal and fallow (P. Reynolds 1979:65-6). At the moment, however, we have no evidence of beans. Flax is known to have been cultivated in northeast Scotland since the early Bronze Age (Shepherd 1986:5), and linen may be presumed to have been an important complement to woollen fabrics.

Alongside these products of the heavily controlled environments of the fields must be placed a whole range of foods and raw materials derived from nominally wild plants. The wild cherries and hazel nuts consumed at Dundurn were probably not

simply gathered, but were harvested from groves which were managed in some sense. This is especially true of hazel, which at Dundurn was used extensively in wattle flooring and probably in wattle walling for internal buildings and ramparts (Alcock and Driscoll 1985:4-6, and below Chapter 9). Coppicing, then, would seem to have been among the woodland management skills of the Picts. Wild resources which were used at Dundurn but probably did not require active cultivation include a variety of reeds, mosses and bracken, the last of which may have been used as bedding (Brough 1980). We may be sure that peat was being cut for fuel by the beginning of our period in Scotland (Fenton 1976:29) and given the proximity of blanket peat in the hills and the raised bog, Methven Moss, it would be reasonable to expect that in some areas of Strathearn peat was being used in the hearth and forge.

Less scholarly attention has been directed towards examining the social and political aspects of medieval animal husbandry than has been given to land tenure arrangements. Although this accurately reflects the nature of the historical evidence bearing on the two types of property, it also an indication of how little medieval archaeology has so far contributed to this aspect of economic history, despite being well discussed in the archaeological literature. Livestock being more ephemeral and mobile, appears in texts as food renders, as the early Irish lawyer's measure of status and incidentally in hagiography (Doherty 1982). Beside this may be placed the plentiful landscape features related to keeping of animals, the artistic representations of animals and of course the archaeological remains of the animals themselves.

The most widespread landscape features relating to animal

husbandry are those involved with moving beasts from place to place and to keeping them put. Throughout the valley are archaeological traces of enclosures which probably contained livestock or farmsteads or, as is likely in many cases, both (see Chapter 10). Frequently one may observe that the enclosures are provided with trackways leading through the fields to the entrances. Presumably these helped keep the livestock from wandering into the fields. In addition at various places in the valley, 'drove ways' leading to areas of permanent pasture are still to be observed where they cut into the slope forming a hollow way. They are however undatable. Although they are ubiquitous features of the landscape of prehistoric Britain (Riley 1980, Palmer 1983, 1984), it is impossible to be certain of the function of these so called corrals and droveways, especially when they exist principally in the aerial photographic record. But even when they are excavated, it is not easy to determine the intention behind structures, which may have performed several overlapping functions. Thus we have debates over whether or not livestock were habitually sequestered in Irish raths (Proudfoot 1961), whether the splayed 'antennae' entrances of the Little Woodbury type were to funnel cattle into the site or to impress visitors, or whether the 'drove way' at Clogher, Co. Tyrone was not a ceremonial avenue (Warner 1987). In Strathearn most of this evidence is in the aerial photographic record or has been observed in relation to upstanding monuments: it will form a major focus of the consideration of the settlement evidence in Section III.

Sources for Pictish animal husbandry remain scarce, but what evidence we have suggests that they were sophisticated, probably

as sophisticated as those of their Irish contemporaries. Our only direct evidence for the composition of a southern Pictish herd comes from Dundurn, although faunal material does exist for Highland sites in the far north, e.g. Crosskirk Broch (Fairhurst 1985), Buckquoy (Ritchie 1977), and in the west, e.g. Dun Mor Vaul (Mackie 1974), and the Udal (Crawford & Switur 1977). For fairly self-evident reasons the agricultural regime in these environments is likely to have differed from that of central and eastern Scotland, so I will restrict my discussion of the archaeological data to that area. At Dundurn a simple analysis of the 500 identifiable bone fragments produced these results: cattle 64%, pigs 28% and sheep/goat 8%. Such data must be qualified in numerous ways, firstly, on anatomical grounds: different species have different numbers of bones, the bones of bigger, older animals are more rugged and therefore survive better and are easier to recover; and , then, on cultural grounds: dietary preferences, social privileqe and refuse disposal all contribute to shaping the archaeological deposits of bone. Moreover, the size of the sample is small by modern standards, and strictly limits any possible observations about herd composition. Given these problems I will restrict myself to general observations on this material (a more detailed faunal report is in preparation). Despite all the above qualifications, cattle clearly dominate the Dundurn assemblage. It is equally clear that the dietary contribution of wild fauna was insignificant, since only the bone of a single wild fowl and a bit of worked antler tine were found. This virtual absence of wild fauna is perhaps surprising on a site with such strong aristocratic links. Similarly the frequent occurrence of

representations of horses in Pictish art might have led us to expect at least the occasional horse bone. The emphasis on cattle however is less surprising. It can sustain two very different views of a pastoral economy. One of these derives from a fairly naive belief in the continuity of semi-nomadic pastoralism among the unromanised barbarians. The other, which situates cattle herding within the context of a fully settled farming regime, corresponds with contemporary Irish husbandry practices.

If we are to avoid the barbarian stereotype in this tentative attempt to reconstitute the Pictish farming economy, then we must transgress the temporal and spatial boundaries of the Southern Picts and take note of better-documented Early Christian Ireland. A number of social implications are proposed in accepting the central place of cattle in the Pictish economy. Contemporary Irish texts leave us in no doubt that the size of one's herd was the measure of the Early Christian Irishman (Mac Niocaill 1972:42-3, Gerriets 1983:50) for as Mac Niocaill has explained they provided the necessary liquid capital to attract and maintain both base and free clients (1981). In Ireland it seems that cattle (cows in particular) were valued not primarily as beef, but as producers of milk and calves. There seems little doubt that the emphasis in Ireland was on dairying. In a number of archaeological assemblages of animal bones from the Early Christian period, Finbar McCormick has identified the population structures (based upon age and sex) characteristic of dairy herds (1983). These include collections from royal sites, of which Lagore (Henken 1953) is the best known. To explain this emphasis he points to the productive superiority of a dairy regime over a beef one: annually dairy cattle can yield 115 Kg of protein per

hectare, while cattle raised for beef yield about 27 Kg per hectare. The importance of a dairy regime is supported by the medieval Irish texts which describe the dietary importance of various preparations of milk, butter, and cheese, as well as being documented in post-medieval accounts of Scottish country life (Lucas 1960, Fenton 1976:124-58, 1980).

The obvious use of cattle to reckon status in early Celtic society, and an apparent emphasis on dairy products and livestock in the customary food renders due to a lord from his tenants and clients, led earlier generations of scholars to conclude that the early medieval economy of the Celtic west was overwhelmingly pastoralist. Although renders of livestock and dairy produce do figure prominently in all the sources - the Irish and Welsh laws and the Scottish charters - the relative importance of pastoral to arable has probably been over emphasized, at least in dietary terms. The most detailed early contemporary evidence is preserved in the Irish laws which list the bés, customary payment (literally 'custom') due from various grades of client (Gerriets 1983:50-2). In addition to livestock, the payments were composed of various agricultural items including grain, malt, butter, cheese, milk, candles and meat. Gerriets reckons that of these goods were 'significantly greater in value than the payment of cattle which identify a particular bés' (1983:50), and the quantity of arable products certainly looms large among these goods. Similarly in the Welsh Laws of Hywel Dda a considerable portion of the payment is made up of non-pastoral goods like grain, beer, bread and honey (Richards 1954:72-4, Davies 1982a:46). In Scotland, the traditional payments in kind, cain, which are recorded first in the twelfth and thirteenth century

charters, despite considerable regional variation in the specifics, also exhibit this mix (Duncan 1975:153-6). An important aspect of these payments was their periodic seasonal nature.

In Ireland bacon, malt, grain and candles were paid as 'winter food', while bread, milk products and leeks were 'summer food' (Gerriets 1983:52). In Wales, 'apart from winter and spring food-gifts, four were due in Summer, and this may mean that the court visited each township six times a year' (Alcock 1971:323). In Scotland, it seems that a similar arrangement of periodic payments lay behind the substantial hospitality-rent, conveth, which was collected (and consumed) by a lord or his representative in person (Duncan 1975:154). Although Alcock was cautious about projecting the peripatetic court documented in the later medieval texts, like the Laws of Hywel Dda, back into the early Middle Ages (1971:323), there are good reasons to suppose that such arrangements can be extended into the early period, as Alcock himself now agrees (1987a). Given the personal nature of clientship (see Chapter 7) an annual circuit would not only simplify the process of rent collection, but would confirm and strengthen the relationship of client to lord through the act of rendering 'food-gifts' and the lord's reciprocal use of the conveth to host a feast.

In Celtic societies, the consumption of dairy products had a marked seasonal aspect. Lucas tells us that 'white foods' were considered summer fare (1960) and Fenton relates that dairy rich diets are characteristic of sheiling life, not the least because cows could provide milk during the summer period before the harvest was in (1976:124 ff). The continuity of Scottish pastoral

tradition, which was frequently commented upon by later medieval writers (Fenton 1980:94), entitles us to look to relatively recent Scottish customs of grazing and sheiling for clues about the mechanics of the pastoral regime of earlier ages. While we cannot know that the customs we associate with sheiling, including moving part of the community away from the farmstead and the intensive making of butter and cheese, existed in early medieval times, it seems very likely that there were areas of moor which were never cultivated and were used for grazing. Barrow cites the evidence of a thirteenth century charter, which relates that the Muir of Orchill, in our study area, was permanent common grazing (1962:137-8). Given the probable antiquity of uninhabited common grazing, sheiling may be taken as a useful model for understanding the practices relating to the use of these permanent pastures. Essentially the shieling system involved shifting the herds (cattle, sheep and goat) from designated areas of outfield near the farmstead to more remote, often upland, tracts of summer pasture. If we follow the early Irish legal distinctions, then we would expect that areas of fenced pasture put aside for summer and winter seasons were not held in common, while the shieling pastures generally were common grazing for a specific community. These valuable grazing rights were jealously guarded by the laws (Charles-Edwards 1972b:62-4). An obvious benefit of this practice was that it allowed for an efficient use of the grazing potential of a given region, since while the sheiling pastures were being grazed, the outfield pasture was given the chance to recover. It also allowed the crops to mature in peace.

We know from relatively recent times that the seasonal

migrations of the livestock and their tenders strongly affected the order of the agricultural cycle. The timing of specific tasks and activities was seasonal, but the precise timing was determined by the actual movement between the farmstead and the hills, which would have varied from year to year. The timing of events was thus task oriented and not purely astronomical or calendrical. The connection between dairying and summertime has already been mentioned. The need to preserve some of this bounty no doubt encouraged the practice of butter churning and of cheese making (both of cow's and ewe's milk). While shieling governed the production of dairy products, it was itself governed by the timing of the harvest. The livestock were kept in the hills as long as weather permitted, ideally until after the crop was in, when they could be allowed into the fields to graze the stubble and manure the fields (Fenton 1976:132). No doubt slaughter time also coincided with the return of the herds from the hills at the end of the season when the beasts were well fattened. Thus the three major cycles of food production, dairy, grain and meat, were interrelated.

That a system similar to this was followed in Pictish times is supported by documentary evidence, and some landscape features. The provision of lowland communities with upland pasture seems very ancient. Barrow has traced these traditional property rights in Scotland's earliest charters (1962:126-7); as an example he quotes the charter mentioned above: 'the land called Cotken (Gaelic, coitcheann, 'common') in Kathermothel has been in the time of all my predecessors free and common pasture for all the men dwelling round about it (see figure 4.4), so that no one may build a house in that pasture or plough it or do

anything which might hinder use of the pasture' (1962:137-8). Significantly for us, he has identified here an area of common pasture which was associated with the community of the early ecclesiastical centres of Muthill. Strips of uncultivated land ran through the arable linking these areas of common grazing to the farmsteads. Today evidence of this may survive in place-names containing the element loan or loaning (Fenton 1980:96). In recent times these strips of grass served as droving roads and as 'village greens' where community social events were held. Such loan strips may be analogous to the trackways seen cutting through ancient field systems and leading to settlements, which are visible in the aerial photographs of Strathearn (see Chapter 10). They may also be used to lend weight to the suggestion that at least one of the roles of the pit-alignments (vestiges of earthworks) was to facilitate herd movement. In addition to these long term herd movements we should keep in mind that the ancient Irish practice was to bring the livestock in from the fields and keep them in an enclosure, lios, at night (Lucas 1958:3-6). Not only did this make milking more convenient, but it helped protect the herd from wild animals and cattle raiders. Such enclosures, similar to that excavated at Garryduff, Co. Cork (O'Kelly 1962), appear to be represented amongst the many varieties of enclosure known from Strathearn.

These landscape features bring us back to the archaeological record which provides us with specifically Pictish evidence about the organization of the pastoral regime. Most significant in this respect is the occurrence of the bones of at least two neonatal calves amongst the Dundurn faunal assemblage. I interpret this as evidence that the occupants of the site were intimately involved

with the raising of cattle on a daily basis. These very young calves would have had minimal meat value. This suggests that the assemblage represents the consumption of a working herd and should not be regarded as either tribute or rent. An explanation for why the calves should be killed before they had grown enough to provide any quantity of veal is suggested by the ancient Irish and the pre-Improvement Hebridean custom related by Lucas (1958:6). The custom stems from the relative importance of dairying; in both places it was the practice to slaughter the calves while very young in order to maximize milk yields. The practice also involved making an effigy from the calf skin stuffed with straw and placing it near by the cow to deceive the mother into giving milk. Whether or not these practices were in fact followed in Pictland, this indication of direct involvement with cattle herding at the aristocratic, if not royal, level is important, not the least because it strengthens the suggestion that the systems of agricultural production in Pictland were analogous to those of early Ireland (Mac Niocaill 1972, 1981; Gerriets 1983). And there, as Byrne says, 'the laws are explicit that both nobles and commoners were engaged in tillage as well as pastoral farming' (1971:139). But, there is more to it than that.

Cattle were the currency of power, and not simply because honour-prices were reckoned in cattle, but because a lord attracted powerful clients through his ability to lend 'surplus' cattle and pasture to his clients. Financially such loans can be regarded as a use of investment capital, in so far as the lord realized a profit on the transaction, but perhaps more important were the political implications. The scale of investment described in the legal texts required the provision of small

herds and could only be undertaken by fairly wealthy nobles. Mac Niocaill estimates that the lowest grade of noble controlled eight to ten times the property of his self-sufficient bó-aire client, and that entry into the high levels of lordship (e.g. Aire Forgill with 20 clients) required the lord to possess 40 - 50 times the property of a bó-aire (1981:7-9). The object of the exercise was to attract the economically self-sufficient clients, who in addition to the interest on the investment undertook to provide various services. At the moment we are not concerned with the details of such relationships, but it is important to realize that on the local scale of a community of farms the most important political resources were economic, primarily those concerned with agricultural production. It is equally important to recall that although ancient Irish law may have reckoned a person's honour-price in cattle, their real status was reckoned in terms of the number of clients they could maintain. Thus power (as always) was not a question of controlling wealth, but of the creative manipulation of resources to construct personal relationships.

Although we lack the faunal evidence to verify it, the ability to raise and keep horses seems strongly linked with the Pictish aristocracy as it was elsewhere in north Britain. This is clear whether one looks at Pictish cross-slabs or to the mention of horses in Bede (see Mayr-Harting 1972:95-7,101). In no case is there any suggestion that horses were used to perform agricultural tasks, rather they bore warriors, clerics, and noble hunting parties. The circulation of horses, along with other commodities used to signify social position, also had political overtones. For King Oswin the gift of a fine horse to Bishop

Aidan of Lindisfarne was a gesture appropriate for a devout King. Aidan's subsequent gift of the same horse to a beggar shocked and offended the king, while providing Bede with a good illustration of personal humility (HE iii, 14). Exchanges of such goods signified a reciprocal relationship of dominance and dependency between people of the same social category.

Other sorts of livestock seem less overtly political than do cattle and horses, but this is perhaps because their value was derived from qualities that are less likely to be documented. Keeping a range of species lessens the risk of famine due to disease, as well as introducing variety into the diet. Clearly pigs, goats and sheep made important contributions to the subsistence regime of individual farmsteads. Pigs for instance are attractive because they reproduce rapidly, require a minimum of care and, since they feed in woodlands, they do not compete directly with cattle for pasture. Sheep and goats compete more directly with cattle for grazing but can tolerate rougher pasture than cattle, and sheep at any rate are a necessary burden on the land for their wool. It is probably in the context of cuisine that the small livestock acquired their social value, because they repeatedly turn up in food renders. To that extent they were a politically potent commodity.

We should expect that different species would carry a range of cultural meanings: Levi-Strauss is but one of a number of anthropologists who have elicited these hidden values through the study of primitive classification and mythology (cf. Goody 1977:52ff). Because the cow and the horse played such a prominent role in defining the social identity of the medieval property owning classes, some of their meanings are known to us.

Chapter 6

Extraction and Processing, Storage and Manufacturing

James Deetz has commented that even domestic livestock and the plough furrow are items of material culture, since they are natural objects shaped by human intervention (1977:24). This expands the conventional notion of material culture which treats the term as a synonym for tools. From this perspective, oxen must be regarded as a principal element of agricultural material culture: in western Europe they are literally the driving force of agricultural production. Aside from a few bulls, the only call for male cattle will have been for traction. It is not clear how large the plough teams of the early medieval period were however; the tradition incorporated into the Scottish system of reckoning units of land divides the ploughgate into eight units called oxgates (Barrow 1962:129). The ploughgate was the notional area which could be cultivated by a single team of oxen, which suggests that the ideal team consisted of eight beasts. Although the use of these and similar terms in northern Britain is widespread, it is far from clear that such large teams existed in our period. To a great extent the size of the team would be determined by local topography and soils, as well as the type of plough and the social organization of work. Given the inherent difficulty of identifying a team of oxen in the archaeological record, we must look behind them, at the plough and the field, to gain an idea of Pictish tillage.

If large teams are an introduction of the later Middle Ages, and this is far from certain, then the plough most likely to have been used during our period was a simple ard, one lacking a mould

board, consisting of a bent wooden beam to connect the yoke to the head and stilt. The actual business end of the plough, the share, was of iron shod wood. Such ploughs survive from waterlogged sites in Scotland, the most relevant example being the late Iron Age ard from Milton Loch crannog (C.M. Piggott 1953). The iron share rarely survives, although examples are known from Traprain Law (Fenton 1976:27-30). These simple ploughs, drawn by a pair of oxen, are known archaeologically from the pre-Roman Iron Age in Scotland (Morrison 1985:71) and continued in use in the marginal uplands until recent centuries, but the major question remains: when was the ard replaced by mouldboard ploughs with coulters in the lowlands? Fenton suggests that they were in use 'in the early Medieval period' by which he seems to mean the twelfth century. He argues that the mouldboard plough and its associated large teams of oxen were characteristic of the organization and capital investment associated with monastic agriculture (1976:29). In fact more is at stake here than accounting for the gap in the artefactual record between c.400 and 1300 AD, or pinpointing the change from the ard to the 'Old Scotch Plough'. Rather than explain the change simply in terms of technical improvements brought about by capital investment and new management, I would suggest that the change is directly related to the social questions of land tenure. These are in fact the same factors as are involved in the development of run rig field systems. The ard, it is argued by Fenton and others, is a less efficient cultivator than the true mouldboard plough, but we should remember that the ard is capable, like its technically superior cousin, of ploughing a field, albeit with less efficiency. Nor will it do to argue that ards are incapable

of cultivating heavy clay soils; advances in soil science and the continual discovery of prehistoric settlement in such areas argue against it (Taylor 1983:20). It is even conceivable that the greater labour requirements of the ard are repayed with superior yields, because it has been shown that intensive spade agriculture was more productive than plough cultivation in Ireland (Bell 1984). Thus the question of plough type, like field layout, hinges on the social organization of labour in so far as use of the ard implies more independence in the process of cultivation, while the mouldboard plough with its large team suggests communal or joint ownership. Without, for the moment, getting any further involved with the problem of social organization of labour and the associated questions of land tenure, we can see that these themes clearly underlie any consideration of field layout.

It has been generally considered that the ard, which can only scratch a furrow in the soil and not turn it over, leads to squarish fields, since the soil must be ploughed along the fields length and breadth (Wailes 1970, 1972, Fowler 1981: 176-7, 113-7). In contrast, the mouldboard plough produces long, narrow fields, since it need pass through the soil only once, and a long field minimizes turning. Turning a large team of oxen gave the medieval furrow its characteristic reverse S-bends. Recognizing this relationship between technology and landscape is all right as long as we do not credit the tools with the act of laying out the fields. Robert Dodgshon has effectively criticized such mechanical determinism in his review of the debate surrounding the origins of the open field system (1975). In that paper he rightly indicated that the form of the field was ultimately

determined by the system of land tenure and the organization of the ploughing, and he was quick to add that such sharing of tillage and harvesting tasks did not imply any sort of primitive tribal egalitarianism. At the moment, the only avenue allowing consideration of the specific case of Pictish Strathearn is that of aerial photography. In the aerial photographic corpus are recorded a number of instances of ancient fields in proximity to settlements, the discussion of which will be undertaken in Chapter 10.

Processing

Of harvesting and collection we are almost wholly ignorant, except for the occasional uninformative comment in a saint's life, deposits of burnt grain and the rare finds of a sickle (Wilson 1976) to confirm that it actually occurred. We are better informed about the processing and storage of the harvest, but still major gaps in our knowledge of the simple mechanics exist. Because of the Scottish climate, grain often must be dried in kilns before it can be milled or stored. Such kilns would also have been used for malting, and that may indeed have been their primary function. Into the eighteenth century and later, corn kilns were common elements in farmsteads. Such structures probably have prehistoric roots, but the oldest have been found in Roman military contexts (Fenton 1976:94-9). In pre-Improvement times the peat fuel for the kilns formed yet another link between the resources of the waste lands and the products of arable activity; perhaps this was also the case in the early medieval period. Until the use of radiocarbon dating and more precise modern

excavations it was thought that rotary querns arrived in Scotland with the Romans (Curwen 1933). However, it is now clear that they were commonplace even in the most remote parts of Scotland by the first century BC, if not earlier (MacKie 1972), and they remained in use late enough in the Northern and Western Isles to be photographed in action. The desire to avoid charges levied on milling seems partly responsible for their survival, but to what extent hand querns were supplemented by watermills in earlier centuries has scarcely been asked (Shaw 1984). An equally unresolved, but better studied, problem exists with respect to storage of grain. In east central Scotland consideration of agricultural storage has focussed attention on souterrains. We will consider this shortly.

Using Ireland as a guide, water powered corn mills may be as old as the seventh century in north Britain. The horizontal mill was certainly a widespread feature of the Highlands in pre-Improvement times (Fenton 1976:102-4). These relatively small machines consisted of a rotary quern, perhaps not much larger than a hand quern, the upper stone of which was driven by a shaft with horizontally mounted vanes placed directly in a small stream or in a purpose built mill lade (see RCAHMS 1986:8-16 for lucid drawings of a horizontal mill). Such mills require a fairly swift running current to drive the wheel and therefore are best suited to hilly terrain and tend to be operated seasonally when there is sufficient stream. None of the surviving post-medieval examples are located in eastern Scotland, but this probably reflects the vigour of the Improvements in more productive areas rather than an original distribution. Indeed Barrow concludes his study of early medieval rural settlement in central and eastern Scotland

by noting that, 'the abundant references to mills and multures show that already by the twelfth century and probably long before, the pattern of rural settlement was chiefly determined by the amount of ground that could be ploughed and sown, and of the crops that could be harvested' (1962:140). Presumably these early mills are awaiting discovery.

In Ireland excavated examples have been dated by dendrochronology to as early as 630±9 (Baillie 1980:62), and early law tracts suggest that by the eighth century, when they were composed, watermills were commonplace and standard equipment for the independent farmer (MacEoin 1981:13). These same tracts also provide detailed descriptions of the working parts of horizontal mills which have attracted the attention of several scholars, and have permitted the visual identification of the constituent parts (Curwen 1944, Lucas 1953, MacEoin 1981). Despite this success in Ireland, the study of horizontal mill has been relatively neglected in Scotland (Shaw 1984). The earliest reference is in the twelfth century Gaelic notes in the Book of Deer, where a grant involving an estate named Pett in Muillinn, 'Estate of the Mill', is recorded (Jackson 1972:34). Beyond providing a bench mark for milling studies, it suggests that at some time previous to the twelfth century, mills were unusual enough features of the landscape to be useful in distinguishing places. The usage of mill terms is similar in England, although much earlier. The earliest place-name reference is dated to c.822 and the earliest reference in a charter boundary clause is in 883 (Hooke 1981:267). This however does not take us very far. Here, as in the case of the plough, questions of economics and social organization converge at the point where investigations of the

material culture break down. It would seem, to judge from the archaeology and the Irish texts, that such mills were mechanically simple enough to allow any independent farmer to build and operate one (MacEoin 1981). Furthermore, Melia's excursion into the legal regulation of Early Irish mills suggests that the crux of disputes did not focus on obligatory use of the mill, but on water rights associated with mill construction (1982). Thus Melia's work may imply that the revenue producing capacity of the mill was subordinate to labour saving in Early Ireland, or alternatively that such legislation was designed to inhibit the propagation of mills by making it difficult for any but the largest land holders to operate mills legally. Unfortunately this is not the sort of question which can be resolved from the published work on the matter, because most studies of early mills have concentrated on the mechanics of mills at the expense of the social and political implications of the technology.

From the published discussions of horizontal mills, it is not clear to what extent they would have been technically appropriate for the gentle landscape of Strathearn where, except at the hilly fringes, the water courses move slowly. Even the inhabitants of Dundurn, hemmed in by hills ideally suited to such mills, used hand querns. It seems reasonable to postulate that if such mills existed the elite would have controlled them or at very least have had access to their services and therefore have had no need for hand querns. But to do so would be to suppose that we understood more about the qualities and properties of various types of milling apparatus than we actually do. We are not in the position to evaluate the relative merits of hand

versus waterpowered querns: hand querns may produce a finer flour for all we know and they are certainly more convenient. Ease of storage may be involved, since unground grain may be more easily preserved than flour. Cultural factors which have nothing whatsoever to do with the mechanics of grain processing may also be involved here, as for instance is suggested by the occasional presence of querns in long cist graves (Henshall 1956:261,282). In any event it looks as if watermills and hand querns were in use contemporaneously.

Ireland and Pictland are not the only areas where milling raises awkward and unresolved questions. At least fifty rotary quern were discovered in the turn of the century excavations at the Early Historic site of Dunadd (Christison 1905). Margaret Nieke and Holly Duncan have placed this wealth of querns within the context of a regional centre for the manufacture of fine metal work, leather goods and iron objects and the distribution of these craft items as well as imported goods (1987). They suggest that the querns indicate that Dunadd was involved in the processing of grain, which reached the site as tribute. Perhaps, but why by hand? Dunadd, of all places, with its strong Irish connections would have had knowledge of mill technology. Were the querns themselves perhaps yet another commodity distributed through Dunadd? Further south, in Mercia, one of two Anglo-Saxon mill sites has been excavated at Tamworth. The radiocarbon dates centre on the eighth century for this sophisticated example of a horizontal mill (Rahtz 1976:89-90, 1981). The rarity of Pictish mills does not look so out of place in comparison to the Anglo-Saxon situation, where despite the many early references to mills only two have been excavated. One of the many questions posed by

the rare discovery at Tamworth is: were Anglo-Saxon mills typically under royal control? The fact that only other excavated Anglo-Saxon mill also comes from a royal estate (Wilson 1976:276), might be taken to support the unlikely proposition that even by the ninth century mills had not yet become common outside the royal demesne.

How are we to reconcile these two contrasting images of royal economic management? Is it simply a question of technological development or are there other issues involved? At present it would seem that any questions about the control of agricultural production approached through the processing stage represented by querns and mills must remain unanswered. But for Strathearn we can profitably re-pose these questions at a different stage in the productive cycle, at the point of storage.

Storage

In addition to the several fold increase in known numbers of souterrains brought about by aerial photography (Barclay 1980, Maxwell 1987), recent excavations now allow us to propose a plausible developmental sequence for their evolution. With this growth in knowledge have emerged new interpretations of their function. Wainwright's broadly conceived study of souterrains revealed that throughout Scotland these underground structures vary enormously in size, plan and construction technique (1953, 1963). Of concern to us are the east coast types which he divided into an Aberdeenshire and an Angus group. (The Angus group may be comfortably extended to embrace examples in Strathearn and elsewhere in Perthshire.) Wainwright observed that

the Aberdeenshire souterrains were 'considerably smaller than known Angus examples' and that 'several...seem to have been attached to hut circles as subsidiary structures' (1953:226): in effect they were cellars. At the time,souterrains of the Angus group, although clearly associated with settlements at Ardestie and Carlungie, appeared to lack this direct access from the dwellings. So this was seen to distinguish the two groups. In any event the size of the Angus group seemed to preclude interpreting them as cellars: 'some of the Angus souterrains, including Carlungie I, are so large that a primitive community could hardly require storage space on such a grand scale' (1953:230). Wainwright concluded, because of the frequent occurrence of floor drains, that the Angus type were subterranean cattle byres intended to shelter the livestock from the Scottish winter (1963). In recent years scholarly opinion has shifted away from the cattle byre interpretation and has embraced the position that Wainwright had ruled out on a priori grounds, namely that they are indeed massive stores for dry goods. In part this shift is based on the realization that it would be difficult, if not impossible, to coax cattle into these dark confines and that, even if one could get the beasts through the narrow entrance passages, the environment would not make for healthy, happy cows. More importantly, the excavations of the Newmill souterrain revealed that one entrance to the structure was from within a timber round house (Watkins 1980b). This established that the direct connections with dwellings observed by Wainwright in the the Aberdeen group, and indeed in his Hebridean group, were present in the Angus group. However, the relationship between the souterrain and the above ground world seems to have been more

complicated in the Angus group, since they are often provided with two means of access. For instance, at Newmill there were two entrances, one from within the house and another straight from the yard. The excavator speculated that the outside entry would have facilitated loading, while removing stored goods would have been more convenient (and one might add more easily controlled) by the inside entrance. The discovery of the relationship between the souterrain and house at Newmill led Watkins to reassess of earlier excavations of Angus souterrains and to suggest that they too were typically linked to houses, the insubstantial evidence of timber houses having been previously overlooked (Barclay 1980, Watkins 1984).

Having rejected the byre interpretation, most authorities now agree that these structures served as granaries or as cool cellars for perishable goods like milk, cheese, meat or beer. The capacity of the Angus type which so worried Wainwright is indeed enormous. Newmill, which is by no means the largest, measures 20m long, 4m at its widest, 2m deep: a total volume of 120m^3; of course, allowing for access would diminish the usable space somewhat. In plan the Angus group frequently assume a curved, banana shape, although straight and round examples are known (Wainwright 1963, Barclay 1980).

Because of Wainwright's and Watkins' excavations, which place the souterrain within the context of a farmstead or village, some of the subterranean mystery has gone out of these structures. Given the proximity to the above ground dwellings, it seems hard to maintain that souterrains were residences of a vanished people as one of their folknames, 'Picts' house', implies. Wainwright himself pointed out the absurdity of

regarding them as refuges because they protruded above the ground (1953). In any case there are few formal similarities between the Angus and Irish souterrain (Warner 1979). Moreover, the refuge hypothesis is probably not a universal explanation even for the Irish examples with their tricky passageways and trapdoors (Proudfoot 1961:105-7). The only vestige of this mysterious past in scholarly circles comes from the continuing willingness of archaeologists to entertain the possibility that souterrains served as some sort of ritual arena. Besides their semi-subterranean location there is little to recommend this position.

The dating of souterrains remains a major problem. One of the houses at the unenclosed settlement of Douglasmuir, Angus dating to the mid-first millennium bc (Kendrick 1982:139), has a deep curving passage-like storage area beneath its floor, which has been interpreted as a proto-souterrain (Hill 1982a:30). In addition, at least seven post built structures, some of which may have been granaries, were found at the same site. In the light of the Douglasmuir evidence, Watkins has reinterpreted part of his excavation at the Iron Age open settlement of Dalladies, Kincardineshire, which produced a group of timber built round houses and a series of shallow (1m or less) ditches. One of these houses he reinterprets as a ring-ditch house with a timber or wattle revetted proto-souterrain within the confines of the house walls (1984:66). The fill of the ring-ditch provided material for a radiocarbon date of 24±40 bc (SRR-526). At Dalladies there were structures which seem intermediate between the earlier, completely contained storage passages as seen at Douglasmuir, and the vast, extensive structures typical of the Angus group. These intermediate sized souterrains were entered from inside the

houses and extended outside, some were stone revetted and all seem to have been provided with a timber roof. The storage capacity seems to be on the scale appropriate for a single household. In addition, it should be noted that Dalladies also contained several souterrains which were apparently independent of houses, but which were provided with porches. The role of these as community storage facilities may have been analogous to the timber granaries postulated at Douglasmuir. Fragments of Roman pottery and glass of late second or third century date provide a terminus post quem for the deliberate infilling of the Dalladies group. There is unfortunately no dating evidence bearing on their construction or occupation other than the first century bc radiocarbon date quoted earlier.

The building and use of the great Angus souterrains seems roughly synchronous with the later Dalladies occupation, around the time of Christ and later, but as Barclay points out, the direct dating evidence for the construction period of the southern Pictish group is sparse (1980b:207). There are only the dates derived from contexts preceding construction of the Newmill souterrain: 55±90 bc (GU-1022) and 40±70 ad (GU-1021) (Watkins 1980b:201). The excavator regarded the earlier date as coming from a somewhat more secure context. Calibrated according to Stuiver's high-precision timescale (1982), these dates become BC 5±95 and AD 110±75 respectively. When taken at two standard deviations, these dates have a 95% probability of falling between 195BC-185AD and 40BC-260AD, that is anywhere from the late Iron Age to within a generation of the historical horizon of the Picts.

These new data are welcome, but they do not much alter the

pre-existing dating scheme. It remains fuzzy. The established scheme rests on a few Roman artefacts accidentally incorporated into the fill of souterrains, like Ardestie and Carlungie, which have been taken to suggest that souterrains in general went out of use during or slightly after the period of Roman contact (Wainwright 1963). This is not contradicted by the radiocarbon date for the abandonment of Newmill. The best dating evidence for the abandonment of a souterrains is the single radiocarbon date of 195±55 ad from the fill of Newmill (Watkins 1980b:196). Following Stuiver again, this corresponds to two dendro-dates: 255±95 AD and 335±95AD, which when taken at two standard deviations (2 sigma) can be taken to mean that there is a 95% probability that the sample dates to some time between 65-525 AD. There is no way of selecting within this span of nearly five centuries.

This is not much evidence to go on but objections can be raised to the idea put forward by Wainwright and others that souterrains belonged to the 'proto-Picts' and that they go out of use before our period gets underway. Firstly, given the scarcity of Roman artefacts circulating North of the Forth (Robertson 1970), we must at least entertain the notion that even fragile objects had a long life and may not have even been discarded directly after having been broken. They are therefore poor chronological indicators except in providing a terminus post quem. Second, as Wainwright himself reported: 'built into the souterrains at Crichton Mains and Newstead were square and dressed stones taken from abandoned Roman sites' (1953:230). To this can be added two further examples from souterrains from south of the Forth (Welfare 1984). As Welfare is quick to

acknowledge, these structures are different in most respects from the Angus group, except for being subterranean and perhaps for having been used for storage. The point is that something akin, albeit a distant relation, was being built in post-Roman Scotland. Given this evidence from south of the Forth, given the reasonable doubts about the date of deposition of Roman artefacts and given that we have radiocarbon dates from only one site, we should adopt a flexible attitude to the chronology of the building, use and abandonment of the Angus souterrain. For the moment we must allow that there is a good chance that they continued to be used into our period. The tremendous size of Angus souterrains and the increasing evidence for their ubiquity argues for treating them as a special phenomenon. As Watkins points out the control and accumulation of agricultural goods represented by their storage capacity has important political implications (1984:73-4). They certainly are indicative of the arable potential of Strathmore, and as we shall see of Strathearn, and their apparent point of emergence would seem to indicate increasing productivity about the beginning of the Christian era; or if not increased productivity, at least a change in the storage and collection of agricultural wealth. According to Watkins, the trajectory of this development seems to alter drastically in the late second or third century AD, when he postulates a widespread abandonment of souterrains (1984:78). As discussed above, other than at Dalladies and Newmill, it is difficult to be certain that the building of them had even stopped by then. But it is clear that, although they were deliberately infilled, the settlements around them none the less persisted, sometimes incorporating new house forms.

This digression into souterrain studies has been necessary not simply because their ancestors and perhaps the Picts themselves built and used souterrains, but because Watkins is correct in suggesting that their development and eventual demise are fundamental steps in the development of the Pictish kingdom (1984). In his discussion of the problem Watkins proposes that the storage capacity of the large souterrains indicate the emergence of a regional elite. At the time Watkins was writing the full impact of aerial reconnaissance had not been felt: souterrains can now be seen to be fairly common landscape features in areas which are productive both in terms of cropmarks and grain (Maxwell 1987). They therefore are not the unambiguous index of social status that Watkins suggested. A more important problem raised by Watkins' discussion is the failure to explain how a mountain of grain is transformed into power and prestige. None the less he has properly directed our attention towards the problem of how agricultural production was translated into power: the subject of the following chapters.

Before moving on to consider craft production, we will conclude this discussion of the agrarian regime with a few comments on the rhythm of life it established.

Agricultural Time

The pattern of life suggested by the archaeological and documentary evidence for a mixed arable regime is most readily comprehended by reference to pre-Improvement Scotland and Ireland. Nowhere is the resemblance between the two separate periods likely to be closer than in the cyclical rhythms of

agrarian life established by the requirements of ploughing, harvesting, shearing and slaughter and followed by the Picts and their descendants. A full understanding is probably beyond us as urban citizens of the twentieth century, but an appreciation of these seasonal routines can be gained from folklife studies like those of Estyn Evans (1957, 1978), Isobel Grant (1961), Alexander Fenton (1976) and Henry Glassie (1982). It is beyond the scope of this work to pursue the folklife traditions back to their prehistoric origins. Yet, we should be aware of the relationship between the major agricultural events, the seasonal round and the resulting patterns of social life. Late winter and early spring will have seen the initiation of the agrarian cycle with ploughing and sowing, while somewhat later the arrival of new lambs and calves will have marked a beginning for pastoral activities. Once the weather turned sufficiently mild, the livestock could be taken to graze the permanent pastures, which might be located some distance from the main settlement. This might in turn require that some of the community should live away from the farmstead for the summer in order to tend the animals. Depending on the weather, harvest might begin in August or September and extend for up to a month, no doubt drawing on the labour of most of the community. Ideally the livestock and the last of the community would return from the hills for the winter once the crop was in. Winter would have been the time for home crafts: spinning, weaving, candle making and so on.

Annual rounds of agrarian tasks such as these give rise to specific concepts of time, which as A.J. Gurevich points out are an essential benchmark for studying the evolution of society (1976). The anthropological study of preliterate, 'primitive'

societies has produced an extensive body of theory about the nature of time in such societies, some of which can be fruitfully applied to the early medieval period.Gurevich writes that in such societies:

> time does not proceed in a linear fashion from the past to the future; it is either immobile or cyclical. That which has already been returns at fixed intervals. This cyclical conception of the apperception of time...is linked in large measure to the fact that man has not freed himself from nature and his consciousness is subordinated to the periodical changes of the seasons. The rhythm of social life is governed by the alteration of the seasons and the corresponding production cycles. As a result, the interpretation of both the natural and the social world in accordance with mythical categories leads to the belief in 'eternal recurrence'. Human acts are a repetition of acts committed previously by the divinity or the 'cultural hero', ancestors are born again in their descendants. The consciousness of primitive man is not directed towards the perception of changes, but inclines to find the old in the new. This explains why the future, for him, is not differentiated from what has already been (1976:231, my emphasis).

A similar idea is captured in Marshall Sahlins' phrase 'the Maori think of the future as behind them', a future which is embodied in their past experience as preserved and interpreted in myth (1983:526). But the experience of performing tasks on a daily basis- the milking, ploughing, sowing, reaping - serves to establish a sense of chronological progress, which separates the mythical time of the ancestors from the task oriented time of the living. In addition the physical presence of several generations introduces an awareness of linear time, but as Evans-Pritchards explains, even this is not without a cyclical, timeless quality:

> Beyond the annual cycle time reckoning is a conceptualization of the social structure, and points of reference are a projection into the past of actual relations between groups of persons. It is less a means of co-ordinating events than of co-ordinating relationships, and is therefore mainly a looking-backwards, since relationships must be explained in terms of the past (1940:108).

Given the well known legal and economic importance of the descent group for early Irish society (Charles-Edwards 1972a), such a genealogically oriented method of time reckoning would seem suitable for Pictish society. However from the above comments, it would appear that two conflicting, even contradictory notions of time are current in preliterate society. Gurevich suggests that this conflict is resolved through the ritual calendar. 'Rites and festivals, however, form the link which connects these two different perceptions of time, these two different levels of apprehension of reality' (Gurevich 1976:231). It is around these familiar junctures of Samaine, Beltane, Lugnnasad, and Imbolg that most discussion of Celtic cosmology goes on, but seemingly without grasping one of the ritual cycle's more important social attributes. The cyclical ritual calendar regularly suppresses the perception of task-oriented linear time by celebrations and rites which evoke mythical and legendary figures who inhabit a nebulous past. 'Thus linear time does not predominate in the human consciousness; it is subordinated to a cyclical perception of the phenomena of life, to a mythical image of the world' (Gurevich 1976:231).

I make these remarks about time at this point for several reasons. First, because it is through an awareness of the regularity of the seasonal agricultural routine that we come to appreciate how the ritual calaedar is capable of undermining any notion of linear time in non-literate or marginally literate societies. Second, because the principal Celtic rituals are directly concerned with fertility and are thus a discourse associated with agricultural production and ultimately social reproduction. Third, and most important, in the relationship

between the naturally governed cycles of agriculture and the culturally imposed seasonal payment of food rents, we see a subtle interconnection between the social order and the natural order. By linking these payments to natural determined events like lambing or harvest, the culturally imposed order of things represented by the food payments is made to seem equally natural.

Manufacturing and Craft Production

It would be anachronistic to separate the majority of early medieval manufacturing from the annual cycles of activity established by agrarian production. This is not to deny the existence of craft specialists, but merely to recognize that most manufacturing will have taken place at the household level. This includes spinning, weaving, woodworking, bone and leather working and small scale smithing. We have a fairly clear idea of the basic components of material culture in early medieval Britain (Alcock 1971), and the Picts are no exception here (Alcock 1987c). It can be demonstrated archaeologically for most parts of Britain and Ireland that the manufacturing of most goods was carried out locally, in many cases by the users themselves (Alcock 1987a, Rahtz 1976, Nieke & Duncan 1987). The Viking towns and late Saxon burghs are exceptions to this generalization (Hall 1984). The manufacture of goods primarily for household consumption with perhaps some small portion for local exchange corresponds to Sahlin's 'domestic mode of production' (1974) and it is for that reason that we should not isolate these activities from our wider discussion of the agrarian economy. The timing of production at this level will have been regulated by the seasonal

availability of raw material such as wool, flax, leather and governed by seasonal demands. It is also for this reason that we do not need to dwell on these sorts of manufacturing.

Although this domestic production probably accounted for the bulk of the tools and articles used on a daily basis, there are equally important exceptions. Evidence of the presence of specialist smiths, antler workers and so on at sites with royal or aristocratic links is a common feature of the Celtic world, and we will consider it in a moment. There is however a less well understood aspect of industrial activity, which seems to fall in between the domestic sphere and the scope of aristocratic patronage. This is primarily concerned with the extraction of raw materials, but may also involve the production of certain kinds of goods.

The prime examples of this concern iron extraction, but may also relate to the procurement of rare or exotic goods, like precious metals, furs and so on. However, we will confine this discussion to iron smelting and smithing. Considerable attention has been drawn to the literary evidence relating to the social position of the smith in Celtic society, mostly in texts from early medieval Ireland (Gillies 1979, Scott 1983, n.d.), which suggest that he was something of a social outcast, or at least accorded a special position. It is impossible to know how true this was in Pictland, but there are two peculiar archaeological deposits, which indicate that it may have been. Childe reports that the excavations at the stone circle at Loanhead of Daviot, Aberdeenshire revealed evidence of iron working on the site, which of course posted dated the construction of the monument by many centuries (1946). This smithing activity could not be

closely dated, nor can we place a close date on the iron working activity discovered during the excavation of the Moncreiffe stone circle, which is of course in Strathearn (Stewart 1974). This need not point to social outcasts, but obviously lends some credence to suggestions that the Pictish smith had a special status, even if these periods of smithing in Bronze Age monuments do not date to the early historic period.

The evidence for the extraction of iron is equally difficult to interpret. W.G. Aitken's survey and excavation of the bloomeries in the Loch Rannoch area and in neighbouring mountainous areas provides the most substantial evidence for pre-Industrial iron smelting in Scotland (1970). Clearly these furnaces were located near these upland lochs because of the availability of bog iron ore. In most cases only the 'bowl' of the furnace has survived, but in one instance enough of the wall of the furnace survives to allow it to be compared with the better preserved furnaces at the Iron Age smelting site of Bryn y Castell in North Wales (Crew 1986). Despite this close similarity with prehistoric furnaces, when dating evidence was discovered at the sites investigated by Aitken, it pointed to the high Middle Ages. None the less it seems reasonable to suggest that although these sites do not represent the precise locations of early medieval furnaces, they provide a good model for early medieval smelting. The technology was probably very similar and these remote boggy ore deposits were probably smelted in the early historic period and Iron Age.

If it is accepted that these medieval furnaces are representative of earlier extraction processes, then it may be that smelting along with certain specialized kinds of smithing

were the work of specialists. Perhaps there were analogous specialists who extracted or prepared other raw materials, like flax or leather, but if so we have yet to discover the sort of evidence, which would lead to their identification. At the moment we are not able to do more than suggest that in addition to the home craftsman and the specialists who operated under aristocratic patronage, there may have been others.

Far more attention has been directed to the study of the products of the workshops patronized by the Celtic nobility, than has been spent studying the more humble crafts we have been discussing. However, the organization of the production of those brooches, hanging bowls and other sorts of fine metal work is only just coming into focus. Even so, this is too big a topic for us to do more than outline. Judging from the occurrence of the debris of metal working, mainly moulds and crucibles, it seems that the manufacture of jewellery in north Britain and Ireland was confined to sites with royal or aristocratic status, in most cases within hillfort ramparts (Duncan 1982, Alcock 1987c). The extent to which this was the case can be judged by reports of relatively recent work. The evidence of jewel smithing, can be demonstrated, sometimes on a very large scale at: Brough of Birsay (Curle 1982), Dunadd (Lane 1984, Duncan 1982), Dunollie (Alcock & Alcock n.d.), Mote of Mark (Laing 1975:33-36) in Scotland and Clogher (Warner 1987), Armagh (Brown & Harper 1984) and Moynagh Lough Crannog (Youngs et al 1985, 1986) in Ireland. To these may be added the scant evidence for metal working at Dundurn (Alcock & Driscoll 1985) and the more substantial finds from Clatchard Craig (Close-Brooks n.d.), both of which fall within our study area and are discussed in Chapter 9. Obviously, since far fewer

early medieval sites of a 'common', non-aristocratic nature have been examined archaeologically, there is an element of circularity in this argument. Nevertheless, it does seem to be the case that fine metal working was confined to high status sites.

These findings are important to us for a number of reasons. As Alcock (1987b) and Warner (1987) have noted the presence of metal working debris is a useful index for assessing the social status of an undocumented early historic site. Perhaps, more important, is the implication that the jewellery was being produced under the direct sponsorship and supervision of the lord of one of these places. Presumably, the lord will have controlled its distribution as well as its manufacture. If this was the case, and there is no strong reason to believe it was not, then it indicates the existence of a whole set of productive relations that were different from and independent of the social relations engendered by agriculture. The interrelationship of these two types of production in a non-monetary economy is the subject of Chapter 8.

The potential ramifications of this observation about the centralized control of certain high status crafts by the nobility are quite broad. For instance, they suggest that other crafts related to personal adornment may also have been controlled. Weapon manufacture certainly seems to have been, but some gifted weavers, leather workers and comb makers may also have been patronized. One can also draw a stark contrast with the organization of skilled craftsworkers in Anglo-Saxon England and the continent, where by the seventh century they were found in the towns and seem to have been regulated much more by commercial

concerns. There is however no opportunity to explore these issues here. Nor will it be possible to do more than mention one of the questions this raises for the study of international commerce in the early medieval period: what was the source of the leather goods, particularly shoes (Mayr-Harting 1972:86), that are known to have been shipped from Ireland to the continent and is this of any importance for assessing the value of Pictish herds?

Chapter 7

Relations of Production: Land Tenure and Pictish Society

In this chapter we consider the relationship between the material aspects of Pictish existence and their social structure. So far we have examined the mechanics of production and its static properties. Here I hope to suggest how the material circumstances of existence actively structured social relations and to give some idea of the social contexts in which cultural resources of a material nature - artefacts, food and the built environment - were mobilized. In effect, this is a a recognition that activities, like raising cattle and making brooches, which are archaeologically visible, took place within the context of relations of kinship and lordship. In other words this is an attempt to understand the archaeological record in terms of social reproduction. In this respect this chapter is a contribution to the literature of anthropology and sociology, which seeks to explain how the patterns of daily life, that unfold as part of the continual process of reproducing the physical necessities of life, simultaneously manage to reproduce the network of personal relations which constitute the community (Giddens 1979). Realizing that social relations do not remain static, that they are continually renegotiated, sometimes quite radically, places a burden on the theoretician of human society to account for this process that is both regenerative and transformational. One of the most satisfactory explanations draws upon an analogy with language. The act of speech, like social interaction, serves to maintain the language while continually introducing subtle, and occasionally dramatic, changes. Social

relations may be said to evolve in a similar fashion, but rather than enter into a long theoretical discussion of this point (one which may in any case be easily pursued elsewhere (Bourdieu 1977, Sahlins 1981, Giddens 1979, 1981 and Driscoll 1987a)) I would like to turn to the problem at hand.

It is fair to say that Pictish ethnography is more elusive than Pictish economics. As we have seen, there is no single, undisputed fact about their social organization, including the long standing traditional belief in matrilineal descent (Smyth 1984:58-73, Driscoll 1985:61). We are therefore forced to consider Pictish social organization initially through comparative means or not to consider it at all. This involves examining the Pict's contemporaries in Barbarian Europe, especially their close neighbours : the British, Irish and English (Wormald 1985b). It also includes reasoning backwards from medieval Scottish social arrangements. For various reasons mentioned previously, early Irish society provides an attractive starting place, not the least because it is well documented. The orthodox description of early Irish society as 'tribal, rural, hierarchical, and familiar' (Binchy 1954:54) has much to recommend it as a general description of social arrangements in Barbarian Europe. This concise phrase raises a number of interesting questions of interpretation. Professor Byrne has, for instance, examined the problems inherent in the use of the term tribal (1971). However difficult the task of interpretation may be, a far more important issue of method is raised by following the work of a legal historians and the use of law texts in general. The historical scholar's desire to establish fixed social categories as a prelude to studying change over time is

understandable, and even to be expected when the historical material consists largely of legal tracts. It does indeed present difficulties. Most historians of the early middle ages tend to discuss society in terms of a system of classes made up of nobles, freemen and the unfree. When this tendency allows the scheme to supplant analysis it becomes a problem against which we have been warned by no less a polemicist than E.P. Thompson:

> Sociologists who have stopped the time-machine and, with a good deal of conceptual huffing and puffing, have gone down to the engine-room to look, tell us that nowhere at all have they been able to locate and classify a class. They can only find a multitude of people with different occupations, incomes, social-hierarchies, and the rest. Of course they are right, since class is not this or that part of the machine, but the way the machine works once it is set in motion - not this interest and that interest, but the friction of interests - the movement itself, the heat, the thundering noise. Class is a social and cultural formation (often finding institutional expression) which cannot be defined abstractly, or in isolation, but only in terms of relationship with other classes; and, ultimately, the definition can only be made in the medium of time - that is, action and reaction, change and conflict. When we speak of a class we are thinking of a very loosely defined body of people who share the same categories of interests, social experiences, traditions and value-system, who have a disposition to behave as a class, to define themselves in their actions and in their consciousness in relation to other groups of people in class ways. But class itself is not a thing, it is a happening (emphasis in original, 1978:295).

In the discussion that follows I have attempted to avoid this criticism of class analysis by considering social relations in terms of the transactions by which social relations were made to happen. In archaeological terms this means allowing the material culture its proper position as part of the discourse by which people engaged in social relations. Obviously the work of legal scholars like Binchy is crucial in helping to identify the fields of discourse in which the key social relations are formed and without doubt it is from the legal tracts that we know that the key discourses were kinship and clientage and that land tenure

and control of movable wealth were the fields in which these discourses were most active.

Land and the Kindred

Strong tenurial rights to land claimed through the kindred may be documented throughout early medieval Europe and may with some justification be said to reflect a prehistoric or at any rate pre-literate attitude, which seeks to identify the kin-group with the land. Since we may identify variations on this theme in early Ireland (Mac Niocaill 1972:51), early England (John 1962), early Wales (Davies 1978a & b) and on the continent (Gurevich 1977:3-7), it would be perverse to suppose that the Picts did not similarly regard land as being held collectively by the descent group (however that might have been reckoned). Charles-Edwards, in one of the most effective efforts to cut across the academic barrier between Celtic and Anglo-Saxon studies has managed to identify a similar relationship between kinship, status and land tenure in both societies (1972a). He notes that the status of the English freeman (ceorl) and the Irish free commoner (bó-aire) was expressed in terms of the notional area of land required to support a household. In England this was the hide, in Ireland this was 'the land of one kinsman' or the tech, house. A freeman sought this land from his descent group through the mechanism of inheritance. Although the actually inheritance might occur late in a person's life (Gerriets 1983:47, n.18), in theory the kindred or descent group should control sufficient land to distribute among the eligible members of the group. In Ireland this group consisted of the four generation agnatic lineage

called the derbfine, while in England similar if less well documented descent groups also existed. In both Irish and Anglo-Saxon legal theory the sufficient land was stated to be five houses (or hides) (Charles-Edwards 1972a:16-18). The laws also make an interesting equation between the five hides necessary for a free kindred (that is one in which all eligible members of the group has the requisite land) and the lowest grade of lord, who had five houses (or hides) subject to him (ibid: 18). If a descent group did not have enough land some or all of the members might have to enter into a dependent contractual relationship with those with greater resources. In Ireland the preferred type of vassalage seems to have been between kinsmen. The status of a lord then 'requires that the holders of a five hide unit, namely a lineage, should be his vassal. Lineage, lordship, status and land are bound together in a tightly knit unity' (ibid: 21). Both Irish and English lords were ranked in five house or hide increments, each lot of five no doubt representing a lineage held in vassalage. Royalty in this sense can be regarded as a supreme example of lordship, although kingship did acquire certain attributes which did set it apart from other, lesser instances of lordship (Binchy 1970, Wormald 1985a, Sawyer & Wood 1977).

It should perhaps be noted here that the quantity of land allotted to the freeman presumes that he had tenants, either unfree commoners or slaves, who did a significant amount of the tillage. A freeman then was well up the social scale, and thus the notion that a hide was the unit of land necessary for household was just that, a notion. In real terms it was the land needed to obtain a certain status, not the land needed to survive. Presumably just as the freeman had the right to expect

from his descent group the area of land appropriate to his status, so too the unfree had a right to a place within the territory of the kindred, but the laws are reticent about land tenure at the lowest levels of society. No doubt then as now law was a device for maintaining the status quo of the elite not for ensuring fairness across the entire social spectrum.

In these early legal tracts the notion of property is quite distinct from our own conception of private property. Alexander Gurevich has illustrated this point by drawing attention to the meanings embodied in the Germanic term odal, which describes property relations which are inextricably linked to kinship, cosmology and the relationship between humanity and nature (1977). As he points out 'property is not confined to a relation with an object or with land: it is a quality of the person himself, one of the characteristics of a freeman, of a member of a kinship group.... It is precisely as a result of belonging to a lineage, to a family, that an individual has personal rights, full rights including rights to property' (ibid:5). It is quite evident from the association between status and land tenure discussed by Charles-Edwards that these statements which were made with reference to Germanic and Scandinavian practices are equally applicable to the British Isles.

One may go further and identify the traces of a similar conception of property in Pictland. The term davoch, which derives from the Irish dabhach, 'vat' was used in the former area of Pictland to describe a 'relatively fixed, compact piece of ground, so permanent in fact that it would be given a definite name in the way a farm is given a name' (Barrow 1981a:15). The distribution of the term and the way in which the term was used

in later medieval times led Professor Barrow to conclude that 'despite the Irish origin of the word, there seems something inescapably Pictish about the use of the davoch of land' (1962:135). The davoch therefore seems to embody the notion of property as expressed in the abstract terms of the English hide or Irish and Scottic tech (see Bannerman 1974:131ff). Barrow makes this identification explicit when he says that a davoch 'would support at least one family of free birth, perhaps several such families holding jointly, for we have cases of pit- and bal- [place-]names compounded with mac ...joined to a personal name, e.g. Pitmacdufgil, 'farm of the Dugald's sons'...'(1981a:15). It is very tempting to see such names as the holding of a lineage, but there is of course no way of knowing.

Charles-Edwards well recognizes that the system of land tenure and lordship which he discusses is idealized. Aside from the lawyer's tendency to arrange things into formal schemes, this is because the laws he draws upon were being composed as the system of land tenure was fading away (1972a:3). He outlines some of the changes which led to a divergence in land tenure practice, the most important of which concerned the declining power of the kingroup. In both societies there appears to have been a steady accumulation of landed property in the hands of an ever smaller portion of the nobility. This had the effect of increasing the social stratification and resulted in an increase of the relative numbers of unfree commoners. According to Ó Corráin,'before the beginning of the ninth century and probably much earlier, the derbfine or joint-family and property-owning kindred group, had fallen into abeyance and was replaced by the basic or nuclear family which, because it was smaller and less able to defend

itself, became more and more dependent on lordly protection' (1972:44). The driving force behind this change would appear to be an active process of acquiring clients and property on the part of the nobility at the expenses of the kin-group. Through out much of western Europe this process was encouraged and accelerated by the Church (Goody 1983). In Pictland we can not trace the development of this process, but we can recognize the end results, which are the larger territorial kingdoms of the eighth and ninth centuries. It is important to remember as this discussion goes on that this conflict in interest between relationships established by clientship and those of kinship characterizes the whole age. And that it is this conflict which is responsible for the ambiguity in the land tenure evidence from early Britain and Ireland.

This conflict manifests itself as an apparent contradiction in allocation and access to lands. In principle the arable land was held by the descent group as part of the communal inheritance from time immemorial: theoretically it was inalienable. However property including land was far from evenly divided and was governed by a highly developed inheritance law: in practice this was not a communal arrangement. Although an individual's social identity derived first of all from his or her membership in a lineage or descent group, the shared interest of membership did not imply equality. So, we find that even within that tribal corporate body of kin some members were clients of or personal dependents of other members. They were not all equal. It is the contradiction between the theory of joint ownership and the practice of restricted access to landed property that provides the economic basis for class distinctions in the Early Historic

period. The basic distinction was that between free and unfree, that is between those with control of the land and those without. As we have seen such a distinction could be applied to whole lineages. The free-unfree boundary was not absolutely rigid. Over a period of generations a family could rise or fall. Within the coarse categories of free and unfree there were of course further distinctions which were highlighted by the lawyers in their tracts.

The early Irish laws, composed in the seventh and eighth centuries, discuss four distinct social categories arising out of the fundamental free-unfree division. The free included nobles and free commoners and the unfree included dependent commoners and slaves (Gerriets 1983:47). All were defined in terms of property and birth. Blue blood, wealth and possession of clients were the distinguishing characteristics of the nobility. By the time of the earliest laws, it is quite clear that the inheritance of property had institutionalized class divisions. These status differences which must have their origins in status differences based on age and sex seem to acquire real material expression only with the development of book-rights (written grants of land to the church in perpetuity) which permitted land to be removed from the kin-group at large and concentrated in the hands of a few (see John 1962 for detailed discussion of the English evidence and Doherty 1982:315-6 on Ireland).

In discussing land tenure in Early England, Eric John suggests that 'with book-right begins...the history of the conception of an individual's control over property' (1962:63). This he explains is because 'early English law did not know of any unrestricted donation, that donations of land were in a sense

precarious, and that book-right was intended to create, for the Church first, a perpetual and unrestricted tenure of land' (ibid:49). The first English charters are dated to the second half of the seventh century, but the process of change was slow. It was not, for instance, reflected in the literary values of property as presented in Beowulf and Widsith; 'the poems then seem to suppose that men of the warrior class had to earn their right, and their titles were precarious and strictly dependent on good behaviour' (John 1962:56). Instinctively it is hard to conceive of a nobility without inheritable property including land, but there may be an explanation for this apparent paradox. As John points out 'many of the land books [documentation of land transaction] even of the earliest period, despite their language, convey not ownership of land, but (the term must be allowed us) a "superiority" over land and freemen'(ibid:2). So that while at the unfree level there appears to be an implicit relationship between the land and the tillers of the soil, at the free level the real locus of power lay in rights of 'superiority' over a tract of land, a right which was originally held from the kin-group and lord or king and to whom it reverted at death (ibid:56-7). Wendy Davies' study of early Welsh land transactions provides an indication of how tenacious this traditional quality of group ownership might be (1978b). In southeast Wales the legacy of the Roman villa system was a class of large land holders, who were politically independent of their king, but they still required the king's intervention to alienate land to the Church. Here the royal presence seems customary and symbolic but still essential. Although the land had accumulated in the hands of a few families within the wider kin-group, the king was still looking after the

interests of other members upon whom the property could theoretically devolve. That the land could be alienated suggests that communal control of landed property had largely become a fiction; that the consent of the king was obtained implies that the threat of having future generations claiming back their birth-right led the Church to take the precaution of involving the king in the process despite his limited authority.

Regardless of whether we take John's point that private property begins with written documents at face value or prefer instead to see it as a social development with deeper roots, there can be little doubt about the agency of the development. It was clientage. Before turning to look more closely at clientage, it seems useful at this point to say a few words about the position of the kindred within the larger social and political world.

It is clear from all the customary law of the Barbarian law codes that one's legal and social identity rested with the kindred, at least at the beginning of our period (Wormald 1985b:84-6). Disputes were affairs of the kin-group as a whole. Collection and payment of fines for damages and offences, like the wergeld and honour-price, were the responsibility of the entire group. Unresolved disputes could lead to vendettas lasting generations and the requirements of personal and family honour were powerful forces in politics at every level. This much is well known. True though this was for Anglo-Saxon society, it is only with much difficulty that the operative kin-group, analogous to the Irish derbfine may be identified even in the law codes (Charles-Edwards 1972a:21-30). So if we wish to understand the position of the kin group in society at large we are restricted

to the Irish example.

To simplify, the basic political unit in Early Christian Ireland was the túath, which despite some reservations is best translated as tribe (Byrne 1971, Godelier 1977:70ff). These túatha were petty tribal kingdoms each of which was governed by a rí, 'king' who ruled over the various constituent lineages. The organization of the lineages within the túath has been compared by anthropologists to that of the 'conical clan', which is internally stratified especially with regard to property and access to high office. The noble lineages which enjoy these privileges tend to dominate the rest, but none the less a unity does exist which transcends the economic and political divisions (Goody 1983:237). Byrne is unsure as to whether members of the túath believed in descent from a common ancestor as their names often imply, but he is in no doubt as to their true nature: 'in the historic period most if not all túatha contained forloinnte or families of different descent from the dominant kindreds,....Furthermore, the túath as a kingdom nearly always had subsumed older population groups' (1971:145). There is, then, an underlying process of expansion and conquest, which constitutes a major theme of pre-Norman Irish history. This entailed a continual hiving off and fragmentation of ruling dynasties (Ó Corráin 1972:44-5), and this in turn produced a confusing settlement situation. 'The settlement groups may not have formed a coherent settlement pattern that can be neatly delineated on a map, but may have lived intermingled with their neighbours under kings who represented them as peoples (túatha in the original sense of the word) rather than as territorial units' (Byrne 1971:156). This seemingly chaotic interpretation is

endorsed by Ó Corráin (1972:44-5). The process at work in the territorial expansion and political conquest are of considerable importance for understanding the growth of the Pictish kingdom and we will return to this theme in the final chapters. The applicability of Irish notions of kingship and overkingship are discussed in Smyth (1984) and in Appendix II. For the moment let us turn to the social institution that made such political development possible.

Clientship

If we are concerned with understanding the mechanisms of social reproduction, then it is essential that we examine the institutionalized transactions which linked productive activities to social relations. In Celtic society institutionalized non-kin relations come under the rubric of clientship, which as Mac Niocaill explains:

> was the basic economic underpinning of the upper classes, aristocracy or kings, and a basic social necessity for the lower classes, whom it provided with a certain measure of protection against arbitrary violence - at least by persons other than their lords (1972:60).

It seems likely that similar arrangements are at the root of Anglo-Saxon lordship, but the English relations are not recorded with the same formality as are the Irish (Wormald 1985a & b). It is possible to extract from the mass of detail contained in the rich documentary record of Irish clientage the essential rights and obligations which are the attributes of the relationship. Since we are concerned with the application of a general model of clientship to the Pictish case, it is upon these general

attributes that we will focus.

Essentially clientship was a contractual agreement whereby a client received a fief (in Irish a rath, 'favour') from a lord in exchange for certain goods and services. In Ireland depending upon the terms of the agreement and the status of the individuals involved the relationship was termed either free or base. This distinction is not in itself important for our purposes except as a reminder that quite a range of relationships could be described as clientage. Free clientage, as the name suggests, was a more desirable arrangement from the client's perspective than was base clientage. In both types of clientship the fief consisted of agricultural capital: basically cattle, but sometimes pasture, seed and tools. A free client agreed to repay one third of the value of the fief each year for seven years in addition to a nominal amount of food rent. Over the same seven years a base client owed one twelfth of the value of the fief plus a substantial food rent (Mac Niocaill 1972:60-2, Ó Corráin 1972:43). Mac Niocaill has calculated that, despite the rate of interest, a client of either variety stood to gain over the period of the agreement - as long as the ever present agricultural risks of bad weather did not intervene (1981). In addition to these material exchanges, the lord undertook to defend his client's rights and the client was obliged to perform various tasks, which included attendance in the lord's warband, labour services, and adoption of an appropriately submissive posture: rising in the lord's presence. Although the material obligations of the base client were significantly lighter than the free client's, the base client seems to have provided more labour and was certainly more prone to exploitation by the lord.

Under the conditions of free clientship either party might terminate the arrangement simply by returning what had been exchanged. It was far more difficult and financially damaging for the base client to extract himself from the relationship. The lord on the other hand could virtually terminate the relationship at will and was consequently more firmly in control of the fate of his base clients than of his free ones (Mac Niocaill 1972:62-3).

One might characterize clientship as a means of organizing fair exchanges of goods and services in a rural community, were it not for the fact that among nobles status was reckoned in terms of the number of one's clients. Gerriets in fact does see the relationship as being a freely voluntary one on the part of both lords and clients, who enter into it in order to maximize their material gain (1983:43, 56ff). This is, I think, to misrepresent the nature of the economic relations. Clearly the nobility had a strong interest in seeing that the relationships were, if not explicitly exploitative, at the very least asymmetrical so as to maintain their dominance. Because of the detail of the Irish data it is possible to observe regular occasions of social discourse entailed by clientship which served to reproduce social relations. These make the nature of the relationship quite clear. There are four distinct fields which may be isolated and we will consider each in turn. They are: 1)agricultural resources and products, 2)hospitality or guesting, 3)military and labour services and 4)protection.

1) Cattle, the principal form of moveble wealth, were also the principle component of the initial grant made by the lord and were a major element in the annual instalments repaid by the

client. It is important to note that cattle circulated in both directions while other sorts of agricultural goods did not. Periodically during the year clients were obliged to present their lord with food renders; even the free clients made what amounted to small, symbolic food gifts. It is worth pointing out that these renders consisted of natural substances, which had undergone a cultural transformation through harvesting and preparation (i.e. butchery, threshing and so on). This turned it into produce fit to be rendered to the lord and ready to prepare into food and drink. It is the receipt by the lord of items, like bacon and malt, which have been changed from being pigs and barley, which distinguishes the lord from the client. The client receives from his lord the raw materials of agricultural production, except in the special circumstances of the feast. In addition, the periodic payment marks and reinforces the subordinate status of the client. The moral obligation of the lord to feast his retainers has different properties which distinguish it from either of the two types of exchange just mentioned. Feasts will be discussed later.

2) Clients were expected to play host to their lord and his retinue occasionally. In a sense, this is a variation on the food render, but it is also more. The context of the discourse, in the domain of the client, expresses the lord's position succinctly, in effect it is like the lord saying, 'What's mine is mine and what's yours is mine.' Whereas the delivery of a food render to a lord impresses the nature of the relationship on the presenting individual, a visit to the client brought the message home to the entire household.

3) The services owed to a lord differed according to the

rank of the client: the lower down the social scale the more servile the tasks. It is worth remembering this when speaking of client kings, because in a real sense a client king or noble in free clientage was just one end of a spectrum of relations covered by the term client. At the other end, different in degree but not in kind, was the slave. The slave was simply the worst imaginable sort of base client: one who was completely dependent on his or her master and thus unable to escape into any sort of self-sufficient freedom. The essence of the relationship can even be found at the domestic level within the household where the concept of clientage has its roots. For, as Wendy Davies (n.d.) has pointed out, in Welsh law the vocabulary of lordship was used to describe the relationship between a man and wife and between senior and junior members of a lineage.

The most frequently discussed services concern military obligations (Brooks 1971, Bannerman 1974, Alcock 1987a). This, I suspect, is due to a combination of the ancient lawyer's concern for the interests of the nobility and the modern political historian's search for the driving wheel of the battles and conquests recorded in the annals. Clearly only clients of a sufficiently high status would have served in a lord's retinue with most of the obligations of commoners being considerably more mundane. Although we can be sure that noble clients did not themselves labour for their lords, typical services to which they may have contributed involved cultivating and building. The cultivation duties stretched throughout the year to include ploughing, sowing and harvesting with the amount of work depending on the degree of one's dependence. The building duties specifically mentioned concern fort construction, which most

commentators presume refers to the construction and repair of the earthworks or walls around the lord's homestead. A further specified service was attendance in the lord's retinue at meetings, which Gerriets suggests refers to negotiations of legal disputes (1983:54). In many instances, this may have amounted to bringing along as many folk as possible in order to provide some moral support, much as a group of spectators might hope to give their football team some advantage.

4) For his part the lord was obliged to protect his clients, from both physical and legal threats. Given that the most common sort of military activity was the cattle raid and that the closest thing to a standing army or border patrol was the lord's warband, protection of a military sort must have been mainly through the threat of revenge raids and these are specifically mentioned in the laws (Gerriets 1983:53-4). Obviously in such circumstances it was in the lord's interest to protect his investment. The lord's interest in pursuing compensation for injury or damage on behalf of his clients was no less direct. The lord was entitled to a portion of the compensation and, in any event, needed to keep his clients moderately happy lest they seek to shift their allegiance to a lord better able or more willing to look after their interests.

Despite Gerriets' special pleading, it cannot be accepted that the base client was effectively free to terminate an unsatisfactory relationship. For one thing the financial penalties were high and for another legal recourse was non-existent, since the lord would always be of higher status before the law (Mac Niocaill 1972:63, Ó Corráin 1972:43). Her suggestion that clients were free to choose their lords also seems naive,

given that lords actively sought out clients to enhance their status. In this light the concept of protection assumes some of the connotations it has in connection with racketeering.

In summary there are several general observations to be made about the way these institutionalized practices structure social reproduction. First, it is important to recognize that positions within society are maintained through exchanges of agricultural goods and services, in so far as the rendering of food and the building of a lord's fort articulate the client's subordination and express his clientness. It was through these daily, seasonal and annual observances of the obligations of clientship that the social relations were made to happen, in the sense that E.P. Thompson insists that class relations are lived. And it was through living these relations that society was divided into classes, not the other way around - law texts record social relations retrospectively. The kinds of goods and services a client provided for a lord clearly were an expression of class distinction. Thus, while both free and base clients contributed to the lord's status, they did so in different ways. A lord evidently entered into relations of free clientship to enhance his military power and entered into base clientship in order to increase his economic power.

The lord was able to make these relationships work to his advantage, because of his access to superior resources. It is in this context that relations may be seen to be structured by patterns of land tenure: he who inherited the most real estate was in the position to subsist to some degree off the labour of others. Although the land was inherited from the kin-group, this did not prevent the lord from exacting tribute from fellow

kinsmen. Membership in the kindred did not imply equality.

A second relevant point concerns the efficiency of social reproduction. As we have been saying, even the most apparently static social formation undergoes social transformation between generations. It seems to be the case that in Ireland during the early historic period clientship enabled the generation of expansive networks of political and economic dependents. The implications of this tendency are twofold: first, as Ó Corráin has pointed out, such developments occurred at the expense of members of noble lineages, which shed members as power accumulated in the hands of a specific dynastic family (1972:42ff). This meant that it was easier for individuals to slip in social standing than to rise, and it meant that social stratification increased. Second, this inherent tendency of the social formation towards expansion did not produce stable political entities, and as we have mentioned members of a kindred tended to become scattered over space.

This instability derived from the perception of clientship as a relationship between individuals. Although doubtless undertaken in consultation with one's kin, it remained essentially a personal contract. Clientship was not heritable. A son might succeed to his father's position, but not necessarily. This meant that the larger networks of clientship could be radically transformed by the death of a key member. Within a noble kindred death could lead to a redistribution of property leading to a realignment of clients. Maintenance of a stable network of clients forced the ambitious lord to be a generous lord. These effects are mostly apparent in the struggles for the kingship which have been extensively studied (Binchy 1970, Ó

Corráin 1978, Wormald 1985a).

Clientship not only served to order relations at the community level, but provided a powerful model for organizing larger social entities. The metaphor of clientage, as we have suggested, had its origins in the domestic sphere and perhaps has as its most pure expression the relationship between the head of of a kin-group and the other members. Because relations between members of the same tribe were modelled on kin relations and were extended to intertribal relations, we find two elements of kin relations reproduced over and over at each level of society: the junior member paying tribute to the senior and the senior protecting the junior. Even when the fluid aspects of personal intertribal clientship had evaporated, leaving solid dynastic groups at the head of kingdoms, these paternalistic qualities of clientage remained (Byrne 1971, Ó Corráin 1978).

Most serious scholars of early Scottish history have been reluctant to discuss Pictish society in any detail. Having outlined what I believe to be the salient points about early Irish and English social relations as understood through the institution of clientship, it remains to establish that similar social relations existed in Pictland. This however is more appropriately considered after examining the settlement evidence, and it is therefore undertaken in Chapter 13 and Appendix II.

Chapter 8

Economic Order and Social Order

As a result of the writings of Marx and Weber it has become commonplace to see pre-Capitalist economic relations and social relations as two sides of the same coin: this applies even to the coinless Picts. In this chapter I propose a model of Pictish society based upon the circulation of material goods and how those goods serve to define social relations. Two economic spheres are distinguished on the basis of the commodities involved, and in terms of where in the cycle of production, distribution and consumption the goods are controlled. This will serve to link the economic spheres to the social configuration. Following a general exposition of the scheme I would then like to consider some of the more important of these goods, those which are the relics of Pictish society.

This effort to describe a non-market economic system in terms of circulation patterns has two aims. The first is to avoid the misleading economic theory with which many archaeologists find themselves encumbered. That is, the division of economic activity into the subsistence sphere and the commodity, or production-for-exchange, sphere. This distinction has come under criticism from prehistorians essentially in response to arguments presented by substantivist economic anthropologists, who treat economic relations as being embedded in social relations. In prehistoric archaeology this has led to dissatisfaction with explanations of social systems based on this misleading economic division (cf. Barrett and Needham 1987, Frankenstein and Rowlands 1978). The division, which is an ad hoc construction, lacking in

any formal theoretical armature, attempts to distinguish between activities like raising wheat or building houses (obviously necessary to subsist) on the one hand and making jewellery or raising falcons (obviously superfluous) on the other. Two concepts, which are often drawn upon by users of this economic model, require special mention because they are particularly prone to abuse. They are prestige goods and surplus. A more developed discussion of these issues may be found in the works of Sahlins (1974) and Godelier (1977) among others, but the main point is clear enough. Economic discussions must include an account of the social contexts in which the goods operate, because value is not an intrinsic property, it is culturally created. This leads us into our second point, which is really a restatement of the substantivist position in economic anthropology. People use goods to express ideas about social position and role. This is far more complicated than observing that rich men drive flashy cars, as Mary Douglas and Baron Isherwood have well shown (1979). In 'primitive' economies, those lacking in a currency, there is by definition no universal medium of exchange even though a colonial currency may circulate. Instead we find that specific sorts of transactions require specific goods, thus creating specific social spheres in which certain goods circulate and in which participation is limited. The value of the substantivist approach is brought out particularly well in Mary Douglas' discussion of the Lele economy (1982:38-82), which is a primitive economy that has been brought into contact with western colonialism. It will be instructive to look at the workings of this economy in some detail in order to illustrate the general principles of the substantavist position.

Among this African people the closest thing to money, even since European contact, is raffia, a homemade cloth. The colonial currency is of restricted use and cannot be used to settle social debts. 'Lele use raffia principally for payments of marriage dues, fines, blood-compensation, and cult entrance fees, which may be collectively called "status-payments", not purchases. As a medium of exchange it functions only rarely, as this is not a market economy' (Douglas 1982:55-6). There are three points which we should note which are relevant for our understanding of the economics of early Celtic society. First, Douglas lays stress on 'the importance of raffia in its social role, creating ties of mutual obligation, between individuals and their fellow clansmen, between young and old, between clans and villages, and between villages' (ibid:54). Second, she describes the circulation of raffia as a social game played by men. In this game, if a man 'cannot give the impression of generosity, he loses not only prestige but the opportunity of obtaining credit when he needs it....Since it [raffia] is desired, not as purchasing power, present or future, but for the sake of prestige gained by parting with it, there is no point in hoarding raffia' (ibid:51). Lastly, and most important, the object of controlling raffia and maintaining good credit is to obtain rights over women. Nowadays this generally translates into a wife or a wife for a relation, but formerly this could also have been a female slave. The Lele lack strong class divisions so the group interests which the raffia are used to dominate are defined by age and sex. Obviously in Celtic societies which are clearly stratified, goods are mobilized to dominate other classes as well as controlling women and the young. In the discussion which follows the relevance of

these three points should emerge.

Economic Spheres: the Agricultural

Were it not for the difficulties inherent in the term, this sphere might be described as that dominated by the economic relations of peasantry. In fact the commoners and unfree in the social order we have described in the preceding chapters probably should not be labelled as a peasantry. MacFarlane (1978a & b) has noted that in Anglo-Saxon England, the rural population did not participate in a market economy and seems to have enjoyed more autonomy than do true peasants. This is not to deny that as a group they certainly were heavily concerned with agriculture. The transactions in this sphere function to define positions of dependence and inferiority, but that is not their only function. Transactions in this sphere rely upon the products of labour intensive agricultural activities, which occupied the vast majority of the population. Although control of the means of production - land and livestock - are central to the working of this sphere, the crucial transactions are concerned with the circulation of finished agricultural products - grain, meat and dairy products. The importance of this distinction is emphasized when we recall that the land market was probably almost non-existent (Davies 1978a:53ff), the normal paths to acquisition of land were inheritance from one's kin, reward for military service (see below p. 133) or through sacrificing one's personal liberty in exchange for an area on which to subsist (Charles-Edwards 1976:184-6).

Products circulating in this sphere include agricultural

foodstuffs and raw materials as well as manufactured goods of wool, leather, iron and wood which might be fashioned by skilled workers on any farmstead. For reasons which will shortly emerge, cattle are a special case, rather like raffia, and do not really fit in here. These goods circulate in two directions and concern two kinds of social relations. In the first instance these commodities will have circulated within the local community where they were produced. Here we are speaking of a range of commerce the details of which we may only guess at, but we should imagine neighbours bartering wool for cheese, or a cloak for a ploughshare and so on. These kinds of transactions are horizontal in the sense that they take place between peers and are no more than a reflection of the human interest in socializing and the local variables like fertility, industriousness and the weather. Also, in the horizontal group, would fall the debts connected with membership in the lineage or kin-group, which include things like brideprices, wergelds and so on. As Mauss (1954) has taught us, in barter when a pig is exchanged for a goat the debt is cancelled immediately and no social obligation ensues. It therefore matters little about the social position of the two participants, since the transaction cannot change the character of the relationship. The character of the economic transactions surrounding an institution like marriage are completely different.

Functionalist anthropologists have shown that the institutions like brideprice and dowry work to bind the families of the husband and wife together in the sense of forming an alliance. Similarly the collective responsibility for wergeld and other criminal debts instils a unity within the kin-group.

Frequently transactions like bride-price are expensive and require the groom's immediate household to borrow heavily from family and friends, creating relations of indebtedness, which last for some time. Funerals, initiations and other occasions of collective social activity can produce similar long term debts, as of course the steep fines associated with some criminal acts were bound to do. However, these ritual occasions are more than social cement.

There are two things to note about the circulation of goods in the context of collective ceremonies or group obligations. First, ceremonial or ritual occasions provide a stage upon which social actors may play out their roles uninhibited by the concerns of daily life (Turner 1969). Thus, the cultural resources drawn upon on such occasions may be mobilized to express ideas (some of which cannot be verbalized) about the relations of the social categories of the people involved: that is between male and female, young and old, kin and non-kin. It is from these contexts, ones in which goods are used to mediate these relationships, that much of the symbolic value of material objects derives (Sperber 1974).

The second point is that although these horizontal transactions obviously can contribute to social distinctions, some of which may involve differential access to material resources, this is not the principal arena in which class relations are contested. From a Durkheimian perspective these transactions might be described as contributing to group solidarity, but alternatively it may be more profitable to follow Bourdieu (1977) and focus on them as the medium for continual renegotiation of social roles, within the household and beyond

it. We may still describe these sorts of transactions as horizontal in the sense that they are about prestige and position within class , not between class.

We are much better informed about and more familiar with the other social arena in which these goods are operative: class relations. We have already discussed in some detail how clientship involved the rendering of natural products which have been transformed into cultural goods, that is into commodities. The key here is to note that between social inferiors and superiors these commodities normally circulate in only one direction: up the social scale. Although we have talked here more about the horizontal kind of transactions, I feel that if anything the vertical ones are more important , both in terms of the quantity of goods changing hands and, because of the the chronological regularity of the payment of tribute, an essential facet of making relationships happen. The vertical relations are more important than the horizontal in another respect. We have a fair idea about the basic nature of class relations among the Picts from their neighbours, but about all we can say about Pictish social life is that they probably had weddings and funerals. So whereas archaeologists can hope to contribute to an understanding of class relations by discussing the other types of social relations, those focusing on age and gender are a different proposition and not one which I will pursue here.

Labour may be placed in this same sphere. It follows the same circulation patterns. At the horizontal level neighbours undoubtedly helped one another to build houses, mend fences and till the soil. Vertically labour was transmitted in one direction only. The commoners ploughed their lord's fields, mended bridges

to facilitate his travel, and most telling, built his fort.

Economic Sphere: Prestige Goods

If the management and distribution of agricultural goods serve to define positions of dependence and inferiority between classes as well as status within class, then the control and distribution of the products of fine craftsmanship serve to define the inverse relations of dominance and superiority. In the previous chapter, we reviewed the evidence for the centralization of specialized crafts like those of the jewelsmith or weaponsmith. There can be little doubt that the patronage of craftsmen, especially of such specialist smiths, was an essential attribute of the early historic nobility. The control over the production of finely crafted goods was achieved in two ways. Firstly the patronage of the craftsman gave the host noble a monopoly on the skills, and we may imagine that the best were as jealously coveted as the bards, who adorned their lords with verbal gems (Gillies 1979:75). Secondly, the scarcity of certain raw materials made it possible for the shrewd lord to maintain an effective monopoly on the key ingredients. This will have been especially true for imported materials like the glass cullet needed for enamelling, and it may have been true for the metal itself, if imported coinage was a source of bullion. We see, for instance, silver circulating in an informal way in early Medieval Wales, where it was apparently subordinate to cattle as a standard measure of value (Davies 1978a:53-4). That objects like brooches, hanging bowls and so on were prestige goods we tend to take for granted, because of our appreciation of their beauty and

our awareness of the level of technical expertise which went into their manufacture. All the glitter tends to obscure an important point, namely that the value of these objects was not an intrinsic property. The value of a St.Ninian's Island brooch cannot be calculated simply by measuring the weight of the silver and counting the number of hours the smith spent making it. These are obviously important considerations, but the value of a given object also derives in part from the context in which it is used and the connotations it acquires through that use. Thus to label something a 'prestige good' simply because it is scarce, unusual or appealing to the modern eye, without discussing the social circumstances of the value is to miss the point entirely.

The prestige value of an object like a penannular brooch stems from its ultimate association with the powerful figure who could command the resources to cause the thing to come into existence and from what the brooch was used for. In addition to fastening cloaks, the brooch will have had an exchange value determined largely by its composition and it will have had a value as a symbol of rank, which was not directly a function of its composition. We will return to this last point in a moment. Like the agricultural goods, these prestige goods will have circulated in horizontal and vertical directions and it is from these patterns of circulation that we learn about the value of the goods and the nature of the relations which they mediated.

Convincing evidence for the exchange of precious gifts may be found in the literary sources for early medieval Britain and Ireland, for example in Beowulf and the Tain. The contexts of these gifts is varied. Often they appear as diplomatic gifts (J.M. Hill 1982). Although all early medieval political relations

may be characterized as paternalistic in some sense, if only because relations of clientship included even the highest levels of the nobility, these exchanges are horizontal. That is, they are when they take place between individuals of roughly the same rank or between distant comrades, because in these instances they are not being used to manipulate class relations. Circulation in these terms is extensive, taking place between the elite members of different descent groups, tribes or kingdoms. Associated with this was the horizontal exchange between the ruler of an area and the foreigners who conduct international commerce. In Dark Age Economics Richard Hodges discusses those arrangements whereby the local elite were able to maintain a monopoly of exotic or rare materials by controlling them at their point of entry (1982:29-65). Essentially, these transactions are analogous to barter in that they do not change the social positions of the participants with respect to one another.

As is to be expected, the vertical transactions within the domain of a lord have a different character and purpose. These differences are compounded by including the circulation of estates within the vertical transactions. Vertically prestige goods flow downwards from the lord, complimenting the upward flow of food renders and services. The early medieval lord as the metaphorical ring-giver appears in all the contemporary literature - verse, epic, hagiography and legal tract. The just lord was a generous man, who rewarded his followers with gifts of weapons, jewellery and mead, and who in return expected nothing less than complete devotion. Aside from providing the members of his war band with the necessary tools of their trade, the lord's gifts to them confirmed their status as his men and as his

dependents. According to Charles-Edwards, the ultimate gift which a lord had at his disposal was land, that is to say an estate and its income until death. It appears that such gifts were reserved for the exceptional warrior who had demonstrated his loyalty over the years. As he notes this gift of land is not to be confused with other forms of moveable wealth:

> Gifts of moveable wealth had a much wider function than gifts of land. All types of friendship whether between equals or unequals, were expressed and sustained by exchange of moveable wealth, just as they were expressed and sustained by exchange of services. Gifts of land also sustained friendship, but they were used for friendship between unequals. Moreover gifts of land operated only in one direction, in the sense that they were not answered by counter gifts of land, but rather by services and renders of moveable wealth. Gifts of land operated only vertically and downwards, from lords to subordinates....The distinction between the social functions of land and moveables in early Anglo-Saxon England consisted therefore in the limited uses of gifts of land and their power of subordination (Charles-Edwards 1976:187, my emphasis).

The land gift created a debt which could never be repaid entirely so the obligation was permanent.

The other familiar role played by the ideal lord was that of magnanimous host, the giver of great feasts. The feast of course is the gastronomic equivalent of the ring, a point which is nowhere clearer than in the Gododdin:

> The men went to Catraeth, they were famous; wine and mead from golden vessels was their drink for a year, according to the honourable custom; three men and three score and three hundred wearing gold torques. Of those that hastened forth after the choice drink none escaped but three, through feats of combat; (Jackson 1969:125).

Like the ring the feast could include both vertical and horizontal social relations. Lest there be any confusion on this issue, the lord's gift of a feast to his followers does not contradict my earlier point about the nature of relations which were maintained by transactions involving agricultural produce. A

food render cannot be compared to a feast any more than a sack of malt and a side of bacon may be compared to supper in a fine restaurant. This is because even if the lord uses items of the food render in the feast, the items are not the same; they have been transformed by cooking and changed from being produce to cuisine. Thus what the lord gives his guests is a meal, what he receives are the groceries. Here it is important to remember that the feast allows the lord a very public opportunity to display his assets and to consume them, or rather have them consumed.

The customary obligations of hospitality due a lord from his vassals, like conveth or waiting, obviously cloud the issue, for they suggest that the lord is the recipient of the hospitality of a social inferior. Unfortunately we do not know who played the host in these situations, nor do we know who was considered to be the provider of whatever food was consumed.

The analogy between the labour services performed for a lord and the lord's protection of his dependants looks good at first sight. In theory the performance of their respective duties was simply a further way of expressing their positions as lord and client, and they seem to move in the correct directions. However there is another dimension to it. The ability to provide protection is what distinguishes the lord from being just a big farmer. In proclaiming it his duty, the lord simultaneously denies the rights of anyone else to do it, thus securing a monopoly on aggression. One cannot help feeling that to credit the lord with being the benevolent protector obscures the true nature of the social contract in which threat of force certainly encouraged prompt payment of tribute. We should, I think, be sceptical about the motivation of the protection, since it was

the iron fist inside the kid glove, which was accepting the agricultural tribute.

Earlier we excluded cattle from the agricultural sphere of goods travelling up the social scale. This was because they do not stick to one direction: they move up, down and sideways. We have seen that cattle formed part of a client's fief as well as part of his render. So it would seem that cattle transcend both spheres. We have already mentioned that the mobility of cattle was probably a contributing factor to their exchangeability. The key to their role in the early medieval economic system is found in the Irish laws which reckon honour-prices in cattle the way that the Anglo-Saxon used pennies. The Anglo-Saxons began minting coins for use in their emporia as early as the seventh century (Hodges 1982). The Celtic realms, more removed from commerce with the continent, were slower to begin to mint their own currency. The first Irish coinage was minted just at the end of the tenth century and the first Scottish coinage not until the twelfth. Before then, the only universally exchangeable commodity besides bullion was cattle. As we have seen, the accumulation of large herds was necessary for success in attracting clients and hence successful lordship. Cattle would then have probably have been the closest thing in economic terms to money, but they were probably closer still to Lele raffia, since they were not a medium of exchange, but were a means of negotiating social relations and, as we have seen, of dominating others and creating class distinctions.

Material Goods and Social Order: Symbols in Action

So far we have considered how the circulation of goods and services was used to define status and class. We can illustrate the value of this analysis in archaeological terms if we turn to look briefly at some specific items of material culture and examine how transactions involving them contributed to reproducing the social order. We begin with three items of what Charles-Edwards would call 'moveable wealth': the sword, brooches and imported pottery.

In symbolic terms swords occupy a prominent place among early medieval artefacts. Because of the level of skill required to make a fine sword, their manufacture was restricted to smiths who specialized in armour. The smith in Irish mythology is divine and keeps company with kings, but he is an obscure figure seemingly on the periphery of the action. This reflects the awe-tinged respect they inspired as well as their intimate relationship with the nobility (Gillies 1981). There can be little doubt that powerful lords retained the services of a blacksmith skilled in making weapons. The value of the sword reflects the rare skill required to make a good one, which is no doubt part of the reason they were so highly valued (Davies 1978a:54), but equally if not more important is what was done with it after it was honed. Obviously good performance in combat was valued and it may this functional context that inspired some to animate their swords by giving them names or in rare cases to adorn them with 'mystical' letters. But we have to look beyond the functional properties, and the precious adornments, and the superstitions to grasp the full importance of the sword.

To understand the role of the sword in social reproduction one has to see it as a key component in the heriot, 'war-gear' an

Anglo-Saxon term which, as Whitelock suggested, originally referred to the 'Teutonic custom by which weapons presented by a lord to his follower reverted to him on the latter's death' (1930:100). Acceptance of the heriot brought the man under the lord's protection and obliged the warrior to use the sword in his lord's service. Although we lack contemporary Pictish evidence, Professor Duncan has noted that a similar practice lasted in Scotland until the sixteenth century, where 'one clan could choose a neighbouring magnate to be its chief by giving calp [tribute], and ...in token of protection owed, the chief "as use is" gave a sword in return at the making of the compact' (1975:109). We are thus in a position to recognize the symbolic character of the sword as an indicator of the privileged noble warrior and of membership in, if not leadership of, a warband, and most important as a reminder of the obligations that acceptance of the weapon entailed. This meaning of the sword, as a sign of lordship, is stressed because it is the one which seems strongest, it certainly lasted longest. By the late Anglo-Saxon period the heriot came to refer to land which was only held for the lifetime of the grantee (John 1962:56-9) and as Michael Clanchy has so vividly related the sword remained an important sign of hereditary title to land until well into the middle ages (1979). Outside the Anglo-Saxon and Viking graves early medieval swords are not plentiful. The closest one comes to an actual Pictish sword are the silver pommel and chapes from the St. Ninian's Island hoard (Small, Thomas and Wilson 1973), although there is the occasional stray find like the Viking style sword from the Watergate, Perth (Shetlig 1954:72). There are however several representations of men bearing swords on Pictish stones,

two of which are housed in the museum at Meigle, Perthshire (Allen and Anderson 1903:299, 302). It is with these ideas in mind that we should look at these representations of the Pictish aristocracy.

Margaret Nieke (n.d.) has illustrated in far greater depth the social significance of the penannular brooch. The potential range of social circumstances in which brooches were active is of course much wider, so the implications of her study are of some importance. That the wearing of the brooch was a marker of status emerges clearly from British sources like the Gododdin in which the noble members of Mynyddog's warband are described as wearing the brooch (Jackson 1969:33-4, 116-7). If Irish legal texts are any guide then the quality of the materials and fineness of the workmanship were thought to represent the wearer's status unambiguously. The representations of people wearing brooches that occur on Pictish and Irish carved stone crosses provide further detail about the contexts of their use. On Irish crosses brooches are worn at Kells by biblical figures and at Monasterboice by Christ himself. If we take it that this represents contemporary standards of ecclesiastical attire, then it appears that brooches were prominently worn by clerics as well as aristocrats (not that the two conditions were at all mutually exclusive). The Hilton of Cadboll cross-slab (Wainwright 1955, plate 9) takes us a step further for there the figure at the head of the chase scene, wearing a particularly massive penannular, is certainly a woman : she is riding sidesaddle. Her participation in the hunt scene also leaves little doubt as to her noble status.

Brooches can be seen as one of the most visible signs of the

relationship between a lord and dependant, and they are at the same time one of the broadest since they cross over class and sexual divisions. Clearly the impact of these as signs of relationships was at an intimate level, since one had to be fairly close to even see them. But at that face-to-face level it must have been possible for the knowledgeable to identify the products of a specific workshop and thereby identify a person's affiliation in much the same way that interested parties can recognize school or regimental neckties, but the rest of us cannot. The mould evidence from Dunadd, Dunollie, Clatchard Craig and Birsay (see Chapter 6) indicates that the smiths were producing a range of sizes and forms. This seems to suggest that the great lords were making an effort to control a large part if not all of the production. Whether they distributed the smaller and less elaborate brooches directly to their non-noble dependants or through intermediate clients is not a question we can answer given our state of knowledge. We can however get an idea of how the distribution might have worked by turning to consider some of the recent results of research on E-ware.

E-ware, as is well known in early historic circles, is an imported pottery found in Western Britain and Ireland in the seventh and eighth centuries. It appears to have come from western France (although a source has not yet been identified) and is therefore often linked with the wine trade. The vessel forms have been known for some time and distribution in the Irish Sea province long recognized (Thomas 1959, 1981a, Wooding 1983), but it is Ewan Campbell's recent work that has for the first time allows us to glimpse some of the finer details of the distribution process (1984, n.d.). Campbell suggests that distribution was

focused upon and controlled from regional centres like Dunadd. His examination of the fall off curves from these putative centres of distribution revealed that most of the vessels are found on sites which lie within a radius of 15 km from each centre, but that a smaller but significant number also turn up on sites about 40 kilometers distant. He suggests that the close-in group represents sites with direct political affiliation to the major centre, while the more distant sites are major centres in their own right but without direct access to E-ware. It is important to recognize what it was that was being controlled. It is commonly supposed, that along with E-ware other continental goods, especially wine were being imported. In fact Campbell (n.d.) reports that it has been recently recognized that some of the smaller lidded pots originally served as containers for a red dye native to the Mediterranean world. This supports the idea that E-ware is just the most durable element in a package of commercial commodities. Despite the rather small number of vessels, and the fact that the pottery may have been peripheral to the main goods exchanged, it is still valuable because it is the only import whose distribution pattern we can understand.

Outside of the Northern and Western Isles, there is no prehistoric tradition of pottery vessels for food service in Scotland after the demise of the beaker. Such pottery as was made in eastern and southern Scotland during the later prehistoric period seems to have been for storage and cooking (Cool 1982). Whatever experience natives had with the use of ceramics for anything other than cooking or storage was through imported Roman pottery. E-ware consists of jars and pots with lids, bowls, jugs and beakers. Frequently the term kitchenware is used to describe

E-ware, but given that signs of cooking are not a universal or even a common feature this is misleading. Rather these are for use on the table to be seen and handled and given away. The pottery, which is heir to the late-Roman ceramic tradition, represents the paraphernalia of an alien cuisine and surely the use of these vessels must have evoked the Mediterranean world.

The distribution of vessel forms supports Campbell's distinction between the distribution among not especially prominent local sites and the more distant major centres. The vessels found on the sites near the distribution centres were of the most common forms - the beaker and jar, while the more remote sites were receiving the scarcer bowl and jug forms which were otherwise restricted to the major centres. This distribution could not provide a better metaphor for early medieval lordship, with the locally scattered clients expectantly holding their beakers waiting for them to be filled from their lord's jug. The distribution of the jugs would appear to represent the exchange between peers - fellow throwers of feasts. That such patterns are reproduced across the spectrum of material goods is suggested by the recognition that a fairly plain penannular brooch from Kildonan dun, Kintyre is of similar, if not identical, design to a mould discovered at Dunadd (Nieke and Duncan 1987).

We may conclude this discussion of prestige objects by pointing out that, in a sense, they are superfluous to the working of the social system. Relations of power were negotiated first and foremost through the control of land and agricultural production, and only secondarily through control of exotic or precious goods. Nonetheless these goods are important for two reasons. Firstly and very pragmatically, until detailed

environmental studies of the type which we now have for Danebury (Jones 1984) are done, the 'consumer durables' are our best evidence. Second, they were undoubtedly important to the Picts. To reiterate Gurevich's point, in early medieval Europe property was a quality of a person, and the Picts may have seen the penannular brooch as an intimate part of their social personality. Certainly the Hilton of Cadboll sculptor thought it important to endow the woman rider with a visible sign of her position. Finally these kinds of goods are at once small and valuable and therefore easily transported. This suggests that the Picts took their gift-giving as seriously as the next barbarian (Byrne 1973:43ff) and underscores the idea that human social relations do not happen between fixed categories *in a system, but* between people. They therefore need to be carefully maintained. The exchange of goods is one way in which this can be accomplished.

SECTION III:

Archaeological Analysis of Settlement Remains

Introduction

An understanding of the settlement evidence is necessary for any specific consideration of Pictish social organization since it is through the organization of the landscape that we may best hope to comprehend the relations engendered by agricultural production. Unfortunately the study of Pictish settlement is still in its infancy: only a few sites have been excavated in Southern Pictland and those generally on a small scale. Consequently this section will focus on expanding our knowledge of settlement form and location in order to compile settlement distributions. The analysis of those patterns will be undertaken in Section IV.

The best studied and best understood sources on Pictish settlement are verbal. They consist of place-name elements and mentions of sites in historic texts. They tend to concentrate in the lowland areas and provide no information about settlement form or even about the precise location. The distribution of Pictish archaeological material, mostly sculpted stones, has a similar value; it only points to activity in specific areas but cannot be used to infer settlement in detail. Until now knowledge of the form and location of these settlements was almost non-existent; as was discussed above in Section II, souterrains and their accompanying settlements are the only identified lowland sites which may in part belong to the Pictish period. This section attempts to alter this state of affairs and provides some specific settlement evidence which can be analysed in conjunction with the historical evidence.

The first goal of the section, then, is to propose some archaeological criteria for identifying early medieval

settlement. Ideally we would start from areas with known documentary evidence, the lowlands where considerable archaeological data exist even in those regions of heavy modern agriculture. This is now coming to light as a result of aerial photography, but here the identification is especially problematic, so the analysis commences with a study of the evidence from those areas which have escaped intensive agriculture. In the hilly margins of the valley lie the most complete settlement remains and among them the best preserved Pictish sites.

There is a considerable amount of upland settlement and cultivation evidence, but only that of the hillforts is readily accessible - the rest has not even been surveyed. In the next chapter the hillforts are classified on the basis of form and location into six groups, drawing upon excavated evidence where available. It is suggested that the groups have a chronological significance. This process allows us to identify those sites which are likely to be Pictish systematically, through the identification of shared features. It also permits the application of the classificatory and chronological scheme to the aerial photographic material.

The following chapter turns to the analysis of the aerial photographic evidence. The primary analysis attempts to weed out sites unlikely to be Pictish in origin in order to focus on those which might be of historic interest. In practice the method followed has three stages. First, the raw features on the aerial photographs were transcribed into scale plans using a microcomputer which allowed close description and classification. Second, the sites were classified into categories similar to

those used by the RCAHMS. Third, each category was further subdivided on the basis of size, formal attributes and associated features. Thus it was possible to follow a procedure like that used on the hillforts; similar selective decisions were made in all the categories based upon excavation evidence when applicable and upon spatial relationships between cropmark features. Having examined all the groups and selected both possible and likely Pictish sites, it was then possible to move on to the next stage where the archaeological evidence was integrated with the historical.

This integration takes two forms. One is the established approach of linking archaeological features with identifiable archaeological sites and the other is to combine the historical information about the settlement location and the social system with the archaeological information about spatial distribution and settlement form in order to produce a model of the early historic landscape. All of this blending however constitutes a separate topic and will be considered in Section IV.

Chapter 9

Hillforts and Other Upstanding Monuments

Hillforts

In Britain unquestionably the most conspicuous elements of later prehistoric and early historic landscape are the hillforts and as a group they have attracted considerable scholarly attention. As far as this study is concerned the scholarship begins with the idiosyncratic work of Christina MacLagan whose Hillforts and Stone Circles of Scotland (1875) *included some of* the Strathearn forts. However, David Christison's systematic surveys conducted at the turn of the century are the real predecessors of this study. In his 'Forts, "Camps" and other field-works of Perth, Forfar and Kincardine' Christison (1900) sought not only to present a body of archaeological data consisting of long descriptions, measurements and plans (frequently the earliest published), but he also analysed it. He sought to distinguish between the early (i.e. Iron Age or Roman era) constructions and the medieval ones. Furthermore he was careful to distinguish between those native constructions which were traditionally ascribed to the Romans and the authentic Roman fortifications. Christison's plans are not as accurate as we might like (he surveyed most single-handedly) but his publications are still of considerable value and much of what follows is indebted to his work. Quite a few sites not recorded by Christison have been discovered since his day and most of the sites discussed here have been surveyed recently by the Ordnance Survey. Their plans, which are available at the National

Monuments Record, Edinburgh, provide much of the raw data for this study as well as many of the figures.

I do not at this point wish to embark upon a discussion of the value and limitations of the term hillfort (see Avery 1976 on this topic). The significant features of these sites will emerge in the course of their consideration. Here I have simply followed the usage of the O.S. field officers. They consider all earthworks or stonewalled enclosures of the order of 0.25 hectare and above as hillforts, regardless of elevation, degree of elaboration of the ramparts or defensiveness of the site. It is quite clear that within this category the sites vary considerably in their age and probable social character. Our first task therefore will be to develop some criteria for differentiating among these sites based essentially on evidence of field remains. Ideally these criteria will allow us to distinguish groups, will not be overtly subjective and will be applicable to the analysis of aerial photographs. There are thirty-seven sites within the study area that have been encountered as upstanding remains, most of which are hillforts. Of these not all have survived down to the modern day, several have disappeared under forestry plantation or the plough and exist only as verbal descriptions. The basic data on the hillforts of Strathearn is summarized in table 3.1, which serves as a key to the maps, figures and references in the text.

As the distribution map (fig. 3.1) shows the upstanding forts are generally found at higher elevations. Those at lower elevations usually occupy rocky knolls which have not been attractive for cultivation and which afford both a degree of prominence and defensibility. As I hope to demonstrate this is to

some extent a pattern produced by later activity in so far as some of the upstanding forts can be paralleled in the aerial photographic record. None the less, the siting of these structures on hill crests and rocky outcrops is significant. Not only does the preference for exposed prominent locations suggest a culturally (and possibly chronologically) specific attitude to space, but within the given cultural perspective of a given era we may attempt to interpret such actions.

It is immediately obvious when looking at the plotted distribution of upstanding forts that there are favoured locations and clusters. For example, no less that ten of our forts are strung out along the northern edge of the Ochils, while very few occupy the Grampian massif up as far as Dunkeld. The steep north slope of the Ochils allows the sites to be in close visual contact with the valley while still separated from it by an imposing climb. In addition the choice of some elevated positions, occasionally over 300m OD, allowed the sites to be seen from great distances and to command wide vistas. The occupants of these sites were, in short, able to dominate large areas visually. While the Ochil group is the largest within the valley it can not be said to form a coherent one. Within the group are found a range of forms - single ramparted large ones; triple vallate small ones; multivallate cliff-edge enclosures; and multi-phase sites composed of several different superimposed plans. In an effort to introduce some order into this data I have developed a classificatory scheme based upon the following factors: topographical location, size, rampart plan and degree of elaboration. The ultimate goal of the scheme is to identify those sites which may be thought of as likely, possible and unlikely

candidates for Pictish foundations. Having ordered the upstanding material it will then be possible to apply these criteria to the study of the aerial photographic sites.

The first of these criteria, topographical location is the most easily quantified and yet remains the most subjective. Altitude is simply measured, but except in extreme cases is rarely an adequate indication of accessibility, of proximity to good agricultural land, or of degree of exposure and prominence. The two most important locational considerations in my view are proximity to good land and visual prominence. Neither of these is strictly dependent on altitude nor do these two siting considerations necessarily occur together.

Evaluating the size of these sites presents problems of a different kind. Firstly the data vary in quality. Some sites which no longer exist are recorded only as brief descriptions, while for some others we might wish for better plans. Beyond that there is a question of evaluating the effective size, since often some of the enclosed area is too steep or rocky to have been used for building or working. The published plans of Dundurn, all of which flatten the site out (eg. fig. 3.12 & 3.13), are particularly misleading in this respect. The multi-ramparted enclosures introduce another problem: where does the inside stop and the outside begin? This is not as fatuous a question as it sounds, especially in cases where the spacing between the ramparts is substantial. It seems likely that some community activities would have occurred outwith the actual enclosure walls, perhaps the particularly dirty or noisy jobs. As a means of side-stepping this problem and at the same time producing a more sensitive measure of size and complexity I have made two

calculations of area for each site. In addition to allowing for comparison of internal and total areas these measures provide a crude assessment of the amount of labour involved in the construction and permit us to calculate the degree of elaboration in the plan. The clear advantage of such a calculation is that it avoids the temptation to use size as a direct measure of settlement status. It was this tendency combined with the short, pre-radiocarbon, chronology which led Feachem to propose that the so-called oppida were the chief settlements in a hierarchy of hillforts (1966). Now that we can appreciate the depth and complexity of Scottish hillfort chronology, which includes periods of activity in the early Iron Age followed by a long pause and resumed in the post-Roman period (Alcock 1987c), such simple equations as 'size = importance' will no longer *do*.

The first measure is interior area (A_i), which refers to the interior area of the principal element of the enclosure. In all but the most complex and elaborate plans I took this to be the area enclosed by the innermost or central rampart. The second measure is of the total area (A_t) occupied by the entire complex of ramparts. These measurements are no more than close estimates based upon the counting squares of graph paper covered by scale plans of the sites. The data are presented in deliberately round numbers to avoid any spurious sense of precision. These measurements are admittedly rough, but then so is our knowledge of the sites. Although not involving any subtle techniques, this method is superior to Feachem's use of size as a direct index of rank (1966), because it allows us to calculate a simple statistic, which I will call the co-efficient of elaboration.

The elaboration coefficient is calculated by dividing the

total area by the interior area (A_t/A_i). This is intended merely as a guide to the amount of effort spent on constructing the enclosure with respect to the usable interior space. The closer the value is to 1 the simpler the site appears in plan. As a concept the coefficient of elaboration can be said to reflect the builders' ideas about efficiency, and as such provides a handy index for evaluating their work.

The final characteristic which has been used is the plan, by which I mean only the general character of the layout and the ordering of space within the enclosure. I consider it impossible on the basis of surface evidence (all that is available in most cases) to say much that is chronologically meaningful about rampart construction. For that reason I have not followed Sherriff's (1978) lead in classifying the types of rampart. Nor do I feel that the analysis of entry configuration would be especially revealing given our lack of knowledge about such architectural details.

On the other hand the partitioning of space into separate compartments or compounds by the use of walls, banks or ditches does seem to be chronologically useful and socially meaningful. In this we are following the lead of R.B.K. Stevenson (1949) who first proposed that 'nuclear forts' were of early historic date. Since then excavations at Dundurn and Dunadd have corroborated his suggestion, while at the same time making it clear that the process leading to the construction of such complicated structures was one of growth and development and not of a single design. Moreover such plans, which are intrinsically hierarchical, lend themselves to further speculation about the relationship between the social structure and the architectural

arrangements.

It will be convenient to begin this discussion with the data on area, because that is most easily presented and least problematic. The areas of the individual forts are presented in table 3.1 and the sites are located on the map (fig. 3.1). The size range data, measured both by interior area and total area, are summarized graphically in histograms (fig. 3.2 and 3.3). The graphs are not meant to provide the basis for any elaborate statistical argument given the small quantity of data, but they do give a good indication of just how small these sites tend to be. Measured in terms of total area occupied by features which define the site (i.e. A_t), over two-thirds cover less than one hectare. As the display of A_i shows this tendency towards smallness is even more pronounced when the interior area is considered. Within this collection of small sites there is a range of plan types varying from the simple to complex. Similarly among the larger sites the plans tend to be of two types: either simple, contour forts (sometimes multivallate) or exceedingly complicated structures which are evidently the work of several construction phases. Absolute size in itself does not help to isolate typologically similar sites.

The next stage in the analysis is to consider the degree of elaboration as revealed by the ratio of interior area to total area. This provides a crude measure of the amount of labour expended on the enclosure, but, as we will see, it obscures certain aspects of the architectural design. Accordingly I will use the coefficient of elaboration to distinguish three rather loose groupings which, like the raw measures of area, lead on to the next stage in the classification. As figure 3.4 shows, just

under half of the sites exhibit the bare minimum of elaboration: the ramparts enclose the internal area very efficiently, with little wasted effort or extravagant detail. However, within this category of sites with low coefficient of elaboration (between 1-1.5) are found some sites which vary in plan from simple contour enclosures, to bivallate or trivallate structures, some of which occupy promontory or cliff edge situations. In addition it also encompasses both the largest and the smallest of our sites and contains examples which are probably Iron Age and Medieval.

A second group of moderately elaborate sites are those with values between 1.75-4. Although this is obviously an arbitrary grouping of those sites which occupy the grey area between the simple ones and those sites of particular complexity, it does have a certain degree of coherence. The intermediate group are distinguished by three properties: they are all multivallate, all lack internal divisions, and all are of a moderate size. The largest (no.21) occupies 0.9 ha and the smallest (no.2) occupies 0.4 ha. Most in fact occupy about half a hectare and enclose an interior area of something under a quarter hectare.

The third group, those exhibiting a high degree of elaboration (coefficients of 5 or more), consists entirely of sites with multiple ramparts and, significantly, all with one exception (no.24) contain more than one enclosed area within the outermost wall. As is to be expected the sites range greatly in size (A_t between 0.1-2.4 ha) and in layout. Several factors make it impossible to attach too much significance to the actual value of the elaboration coefficient. Firstly it is clear that at least three of these sites are multiperiod and therefore the contemporaneity of occupation in all the enclosing features is in

doubt (eg. no.26). Moreover the area designated as the interior has been selected somewhat arbitrarily: I have tended to select the enclosure(s) occupying the summit, those which appeared to have been the focus of the settlement. This has led to the situation where a small dun-like structure within a simple oval enclosure (eg. no. 26) has a much higher measure of elaboration than does the exceedingly complicated collection of features on Dundurn. Also it seems possible that some at least of these sites are entirely medieval so that a high coefficient of elaboration has no absolute chronological implications. However, contained within this group is Dundurn, which excavation has demonstrated is Pictish; there are at least two other good candidates for Pictish forts of a similar type. It is therefore apparent that this group is of particular interest to us and merits special attention.

We have already discussed the problems of raw measures of altitude and these are all the more obvious when we compare the elevations of the entire group of Strathearn forts. As figure 3.5 shows there are no clear divisions into high and low sites, but rather a fairly even spread showing a preference for situations between 75 and 250m OD. If we select the zone between 150-175m OD as representing a sort of watershed dividing into roughly equal numbers those sites that lie above and below it, the result is not at all useful, at least not in terms of developing our typology: sites which are morphologically quite similar are found on both sides. However it does seem legitimate to observe that two sites which have proved through excavation to be Iron Age (i.e. nos. 1 & 14) are situated on prominent exposed hilltops. To this we may add that certain large , unelaborate forts (i.e. nos.

5, 11, 27), with plans that seem to be of Iron Age type (Feachem 1963:126, 146, 146), are sited most impressively on hills of over 200m and in the case of Dun Mor over 450m. However it is equally pertinent to note that excavation has also proved that at least one lower altitude hillfort of this large simple type dates to the Iron Age (no.26). Nor should we allow ourselves to imagine that Iron Age settlement was restricted to hill-tops or even predominantly upland. What is needed then is a way of expressing the exposure or remoteness of a site from areas of arable. Site catchment analysis (Higgs 1975) is one approach to this problem of evaluating location, which provides a way of linking the sites to their environment and the available natural resources. The methodology as developed by Higgs and his colleagues is very exacting and time consuming, and more suited to the analysis of single sites intensively than to investigating large numbers of sites. More importantly it has been criticized (Hodder and Orton 1976) for its application of geographic principles drawn from commercial market economies which place too much emphasis on the proximity of resources and their efficient exploitation. In addition the assumption that resources remain static over time presents obvious problems. For reasons discussed in Section II the agricultural resources are of primary importance for this study and since arable land is a resource very much altered by human agency this is a serious limitation. Therefore I have followed an approach which is more economical to apply, which acknowledges the limitations of our ability to analyse the key resource (as discussed above with reference to the land assessment maps), and yet which still attempts to recognize the environmental setting of the individual site.

What seems to be at issue with the siting of hillforts is the trade off between the convenience of arable and the other benefits of valley bottom locations like a warmer, drier climate and riverine resources on the one hand, and prominence, seclusion and access to upland resources like pastures on the other. In some cases the decision has been made to locate the hillfort on summits which to us seem very uncomfortable in terms of exposure to the elements, in terms of availability of water, and - most evident to the visitor - in terms of long, hard climbs up from the valley bottom. It is difficult to express the degree of remoteness from valley resources without describing every site individually. Certainly nearly every site over 200m OD involves a stiff walk, but then climbing some of the lower hills involves something of a scramble. Carnac, Moncreiffe Hill is an exception in being over 200m and yet having gentle access from three directions; Dundurn is just the opposite. Although it stands only 60m above the valley bottom climbing it involves some effort. Although the modern perceptions of inaccessability are inadequate measures of past experiences of these sites, I have adopted what seems a useful, if rough, guide to the remoteness of these hillforts. If the site is located in an area <u>now</u> classified as suitable for rough grazing or in moorland <u>and</u> is situated more than about 25m in elevation above the nearest field <u>now</u> under cultivation it is classed as remote. Obviously this begs lots of questions and overlooks the fact that close to some of these sites are ancient field systems which would seem to imply that the occupants of all but the most isolated were at least part-time agriculturalists. Certainly in labelling a site as remote I do not wish to imply that the inhabitants were exclusively

pastoralists, or that the sites were occupied only seasonally. We simply do not know enough about the archaeology of these sites to make such statements.

The designation of remoteness is meant to serve as a rule of thumb, which because it does not simply reflect the absolute altitude can serve as one criterion for constructing our hillfort typology. The point to be taken about those sites labelled as remote is that they stood in a different relationship to the most agriculturally productive areas than did those sites located in or near to the valley floor. It has the added advantage of embodying some social value since it suggests that the inhabitants of the 'remote' hillforts occupied a different position within the relations of production than did inhabitants of the more centrally located forts.

Chronology is an obvious key to ordering this group of sites. At most of these sites one gets an impression of the age of the features which comes from the state of decay as indicated by things like the crispness of the ramparts. It is a very subjective and highly personal evaluation, which is very hard to express through words and figures; in any case, it is of dubious scientific value. I can produce such speculations for each of the sites in Strathearn, which, although my own, have been shaped by observations made by other scholars like Christison, Feachem and Alcock. Some of the sites which contain diagnostic features are dated and thus provide a measure for the dating of other field remains. However it is notoriously difficult to apply these diagnostic traits with absolute certainty as the experience of Clatchard Craig shows. Both before the excavations and afterwards it was thought by experts to be at least in part a creation of

the Iron Age. However, the recently acquired radiocarbon dates now suggest that it is entirely Pictish (Close-Brooks, n.d.). For a few of our sites there are scraps of tradition relating to the date which may include badly recorded excavations, but these turn out to be more of interest to folklorists and historians of antiquarianism (cf. Anonymous, 1896). Serious archaeological investigations have been carried out and published at eight of the sites and six of these yield information which firmly dates at least one episode of occupation, although not always the building activity. This morass of chronological detail cannot be easily mobilized; it is like the plan morphology in this respect. Therefore I propose to present my classificatory scheme at this point and to draw attention to those details of design or date which seem pertinent.

Hillfort Classification

Class I - Large Contour Forts

(nos. 1, 4, 5, (6), 11, 13, 14, 17, 22, 26, 27, 28, 32, ?35)

Within this group are found the largest, highest and most prominent hillforts in the study area. These sites share several distinguishing characteristics, the most important of which is a simple defensive scheme frequently involving only one rampart and rarely as many as three, which make use of the natural contours of the hill (fig. 3.6). In most cases the ramparts are extremely ruinous and are often marked by feeble grassy banks. The poor state of the ramparts is indicative of the length of exposure to weather and to robbing: rather than being a true representation of the strength of the defences it conveys the impression of age.

When excavated the ramparts generally are seen to be quite formidable. All are efficient at enclosing space (i.e. they have low coefficients of elaboration) and their entrances are usually quite simple. In plan they enclose oval, circular or occasionally D-shaped areas. The interior space is undifferentiated in so far as there are no built internal divisions. In favourable lighting conditions house platforms or scoops and hut circles may be detected, and not infrequently 'wells' or rock-cut cisterns are to be expected within the walls. Several examples have associated outworks and at least three seem to have been reused at a later date (nos. 6, 14 & 26 - see below class V).

One can further subdivide class I into a group (Ia) of extremely prominent, exposed sites and a second group (Ib) which are less so. Members of the prominent group occupy hills which can be recognized for miles because they stand over 200m OD; most in fact are over 300m OD. Some of these are large enough to fall into Feachem's category of minor oppida (1966). The less prominent group are not visually dominant elements of the landscape even when they are found over 200m OD, and coincidentally tend to have better access to modern arable. Again they can be quite large and should probably be thought of as enclosed villages or even towns.

Excavation of sites in this group has produced some interesting information on rampart construction but very little material of value for dating. Both Forgandenny (no. 14) and Abernethy (no.1) were excavated at the turn of the century and reported on by Bell (1893) and Christison (1899). Neither excavation seems to have been of a particularly high standard even by standards of the day: small finds were rare and

structural information minimal. More recently a small scale rescue investigation of the Pairney fort (no. 26) by John Sherriff (1984) although technically good only investigated the outer rampart and several enigmatic pits.

All of these excavation results point to occupation in the Iron Age. Here we are still following Childe's line of argument about the Abernethy culture (1946:12-16, 80ff), modified and refined by Euan MacKie's radiocarbon dates (1976). At Abernethy the critical evidence for occupation in the pre-Roman Iron Age are the finds of a bronze La Tene 1c fibula and a bronze spiral finger ring. Abernethy also produced a fragment of a jet arm-ring and a small jet ring (perhaps a pendant) which are generally considered to be typical of the early Iron Age and which can be paralleled by fragments of jet rings found at Forgandenny and Pairney. In addition all three sites produce a coarse undecorated earthenware which is typical of the eastern Scottish Iron Age (Cool 1982). The excavations at Abernethy revealed sockets in the masonry wall for timber beams. Similar features seem to have been observed at Forgandenny, which also produced vitrified walling. The lack of an apparent entrance through the walls provides a further link between the two sites. In themselves timber-laced ramparts, which may survive either as beam slots or when burnt as vitrified rubble provide no good indication of date (Cotton 1954, MacKie 1976). The Pictish date of the fort at Burghead, Moray, perhaps the first recognized example (Young 1891, 1893), its Pictish date seems to be confirmed by recent radiocarbon dates (Edwards and Ralston 1980), while the vitrified fort at Finavon is dated to the Iron Age by MacKie's radiocarbon dates (1976).

Class II Small Contour Forts with Palisades

(nos.19, 23?, 25, 37?)

These forts are closely related to Class I in terms of their simplicity and undifferentiated interior space, but their locations are not particularly remote (fig. 3.7). Two have been excavated and both are D-shaped enclosures, backing onto slight bluffs overlooking a small burn, which feature two closely spaced ramparts. The forts at Muir of Orchill and Kempy were investigated by Alexander Mackie and described by Christison (1900: 117-20, 1901) who discovered the existence of palisades at both sites, but recovered no datable finds. The existence of palisaded phases is proving a common feature of Scottish Iron Age hillforts (Hill 1982b, 1982c) and is to be expected at other sites in the valley. At the moment, however, only one other excavated example (no. 37) has been excavated (DES 1980:41), although several can be identified on aerial photographs. At Orchill (no. 25) two palisade slots about 0.5m deep containing traces of oak, hazel and willow were found within the line of the earthen rampart (Christison 1901:21-3). The building materials along with the traces of a foundation beam suggest that the 'palisade' may in fact have been a wattle fence. At Kempy (no.19) only one palisade slot was discovered, again within the line of the rampart (ibid: 38). From the report it is impossible to determine the contemporaneity of any of the defensive features. Mackie's investigations focused on the defences and little can be said about the interior, nor is any possible dating evidence other than the palisades.

Anna Ritchie's (1970) survey of the evidence for palisade enclosures in northern Britain was a comprehensive attempt to

examine C.M. Piggott's generalizations, which are enshrined in the so-called Hownam Sequence (1948, S. Piggott 1966). Ritchie drew on radiocarbon dates, Hallstatt bronze objects and other associated finds to conclude that palisades were a phenomenon of the Late Bronze Age and Early Iron Age. This dating requires rethinking in the light of more recent fieldwork on palisaded enclosures. Simply put, it can no longer be accepted that all palisades are prehistoric. Post-Roman examples do exist and have been excavated in southeast Scotland at Kirkhill, St. Abb's Head (Alcock, Alcock & Foster n.d.) and at Doon Hill (Hope-Taylor 1980). The most famous example from this part of the country must be the Great Enclosure at Yeavering, which Hope-Taylor saw as belonging to a British building tradition extending from the pre-Roman Iron Age through the seventh century AD (1977:205-9). For solid dating evidence, however we have to turn to St. Abb's Head, where samples from the burnt palisade provided material for three radiocarbon dates. Alcock et al. suggest that the calibrated radiocarbon dates taken at the two sigma confidence level are indicative of the construction of the palisade between 590-900 AD. Within Pictland too there is excavated evidence that palisades were part of the building repertoire, but it comes from an old excavation and is not conclusive. The promontory fort near to the Roman legionary fortress at Inchtuthill has ramparts which were constructed using masonry from the fortress (see below under class III). The ramparts were preceded by a ditched palisade on a somewhat different alignment and enclosing a smaller area. On the available evidence it is impossible to decide whether the palisade is pre- or post-Roman (Abercromby et al 1901:230-4).

To return to class II forts: the dating of these sites

remains open to debate. The presence or absence of palisades is an inconclusive indicator. We are therefore reduced to impressions. Most of these sites are fairly well eroded, and this, coupled with their overall simplicity suggest an early, possibly Iron Age date. Moreover the location of Orchill at least militates against any medieval occupation, since it lies in an area that from the twelfth or thirteenth centuries was held to have been common grazing from time immemorial (Barrow 1973:52).

Class III Compact Multi-vallate Forts

(nos. 2, 3?, 8, 9, 15, 16, 18, 20, 21, 24, 29)

This group is of considerable interest to us because it contains some of the most complicated and intriguing hillforts in the valley, many of which may be Pictish. Members of this group exhibit a high degree of elaboration: all have at least three ramparts which generally occupy an area several times as large as that which they enclose. With the exception of Clatchard Craig (no. 9), which is something of a special case, these are modest sites. Rarely are they larger than 0.75 ha and, indeed, the available living space is quite restricted: generally less than 0.25 ha. Within this space there are no internal divisions, although traces of possibly contemporary house sites (i.e. 'hut circles') have been noted in two cases (nos. 2 & 21).

None of these sites is the least bit remote from good arable lands. We can subdivide this group on the basis of rampart layout and topographic setting: IIIa forts occupy small hillocks and have ramparts that form a complete circuit, usually with additional defences around the entrance (fig. 3.8); IIIb forts are D-shaped, relying on cliffs or precipitous slopes to complete

the enclosing circuit (fig. 3.9). Two things may be noted in this context: firstly, all members of class III tend to emphasize the facade (the side encountered in approaching the entrance), in some instances to the point of relying on feeble rear ramparts. Secondly, the D-shaped enclosures (IIIb) are not too different morphologically from those forts in class II except in degree of elaboration of the rampart circuit.

The formal qualities of class III forts have several interesting implications for the social status of their occupants. In these forts we seem to be seeing a fair degree of labour being mobilized to enclose emphatically a small presumably residential area. This suggests a greater degree of social differentiation between those within and those outside of the class III forts, a difference which seems to have resulted in more restricted access to the interior than was the case for the larger class I forts. To continue this theme, the emphasis on the facade seems to suggest that it was important to display the labour resources which could be drawn upon by the occupants and, further, that the repetition of enclosing features was intended to underscore social distance between those living inside and those living outside. Finally it cannot be overlooked that some of these sites occupy points which are of genuine strategic value as determined by topographical features. While most of the class I sites are located in visually dominating positions, the occupants of such sites could in no real sense monitor movement or control traffic. On the other hand sites like Clatchard Craig (no. 8) and Loaninghead (no. 21) are sited over the main southern land routes into the valley. Tom A'Chaistel (no. 29) overlooks an oxbow bend in the Earn, probably the highest navigable point for

small craft , which coincides with the point at which the narrow glen of the upper valley gives way to the broad strath. These are particularly commanding positions, but it should be stressed that all the other sites in this group are well positioned to monitor local traffic and to exercise very close control over local agricultural resources.

Our knowledge of this group is not as good as we might wish owing to a shortage of excavation evidence. The earliest recorded investigation was of Tom A'Chaistel, which was excavated with the aid of dynamite during the course of erecting the monument to David Baird which now crowns it. The report in the Chronicles of Strathearn of the discovery of a richly equipped female burial seem fanciful in the extreme (Anonymous 1896:256-7), but the traditional association of the site with the Earls of Strathearn does at least capture the impressiveness of the fortifications. The tradition is less easily evaluated. Generally speaking the degree of elaboration displayed on these sites suggests complex building histories and long periods of use; this can be seen in the field (cf. no. 24 which has two clear building phases (Sherriff 1978:111-12)) and of course in excavation. The excavations at Clatchard Craig not only revealed a succession of at least three building phases involving six ramparts, but provide the most detailed knowledge available about this type of site. Unfortunately, because of its rampart layout, Clatchard Craig sits in class III somewhat uneasily and therefore serves poorly as a type-site. Its ramparts are spaced much more widely than is typical of the group, but then as the excavation has shown it is an extraordinary site. Before moving on to discuss the excavations of Clatchard Craig, it is necessary to establish

the date of typical members of class III.

The earliest suggestion (based on excavation) that sites like class III were Pictish comes from the investigations at Inchtuthill promontory fort (no. 61), which falls outside the study area but would certainly be placed in class III if it were located in Strathearn. Here a series of five closely spaced ramparts in conjunction with the natural slopes form a D-shaped enclosure which cuts off a corner of the plateau occupied by the much more famous Roman fortress (fig. 3.9). When its ramparts were sectioned as part of the project to examine the Roman remains, it was recognized that the impressive inner rampart (still 6m high) contained a core of roughly coursed Gourdie stone presumably robbed from the Roman fortress (Abercromby et al 1901:232) There is some ambiguity here: Abercromby recognized that the promontory fort was not a Roman structure, but does not state explicitly that the Gourdie stones carried marks of Roman workmanship. However, he uses the presence of such stones in a nearby barrow, the 'Woman's Knowe' to support his argument that the barrow was post-Roman in date (ibid:201). Moreover, referring to the promontory fort itself, he cites without contradiction Pennant's view that the fort was 'a citadel of the Picts' (ibid: 232), so on balance it seems as though he believed it was a post-Roman fortification. There is far less uncertainty about the date of Clatchard Craig, although it has taken radiocarbon dates to dispel finally the notion that it was a typical Iron Age hillfort (cf. RCAHMS 1933:3-6, Feachem 1963:126).

The hillfort at Clatchard Craig used to overlook the eastern gap in the Ochils which provided the easiest overland passage out of the valley into Fife. It has now been entirely quarried away,

but before it disappeared two small excavations were conducted in the 1950s. The results of those excavations are being prepared for publication by Joanna Close-Brooks, who has kindly allowed me to use a draft of her report which is due to appear in Proceedings of the Society of Antiquaries of Scotland. Various finds of pottery attest to activity on the hill beginning in the Neolithic, but undoubtedly the most substantial occupation occurred in post-Roman times. Indeed all of the built features appear to have dated to the early historic period. The six concentric ramparts represented at least three major building phases (see fig. 3.13). The earliest ramparts, numbered 1 and 3 (counting from the inside out), were timberlaced and had been burnt. Radiocarbon dates from structural timbers suggest that these two ramparts were constructed in the fifth or sixth century AD. Ramparts 3a to 6 probably represent further phases of refortification, but they did not yield evidence which would allow them to be placed even in a relative sequence, let alone dated absolutely. The final fortification, rampart 2, followed a different line, and like the earliest, it too may have been timber laced. Like Inchtuthill and Dundurn, rampart 2 included reused Roman building stone in its fabric, presumably derived from the vexillation fortress at Carpow near Abernethy. Most of the excavation concentrated on the ramparts, but several areas of the interior were examined and here a significant group of Pictish finds was discovered.

These include a small metal disc decorated in 'hanging-bowl style'; two sherds of E-ware, a silver ingot and a collection of clay moulds for casting penannular brooches which Close-Brooks believes are of eighth century date. Some of the moulds were recovered

from the summit enclosure beneath a hearth and surrounding paving. Most of the remaining Dark Age finds came from elsewhere in the upper enclosure, but despite investigating approximately 70m^2 little evidence for built structures was recovered other than the suggestion of a rectangular building over the hearth area. It would appear that the metal working actually took place within the upper enclosure, where in addition to the clay-moulds for penannular brooches, rings and pins, the excavations also produced a silver ingot, a stone mould, and a flat-based crucible. The economic role of early historic fortifications in the production and distribution of high quality metalwork was discussed in Section II. Here it should be emphasized that, with the exceptions of Dunadd and the Mote of Mark, this is the most impressive evidence for the direct control of the production of fine metalwork by a 'potentate' in mainland northern Britain (Alcock 1987b).

Various other objects compatible with domestic occupation in the early historic period were encountered, most of which are unexceptional in character. However, the elevated status of Clatchard's residents is affirmed by the presence of E-ware; even in such a limited quantity it is the largest collection from a site in eastern Scotland. One of these sherds (possibly both) represents a rare form of vessel, the strap-handled jug (Campbell in Close-Brooks n.d.). To place this find within its wider context it is useful to recall that E-ware is currently thought to have been imported into the British Isles starting around 575 AD from western France. It ceases to be imported in the ninth century, but just when is a matter of debate. Within Scotland, the heaviest concentrations occur on fortified sites in the west.

Elsewhere in Pictland, single sherds of E-ware have been found at Dundurn and Craig Phadrig, Inverness.(The other E-ware find spots in eastern Scotland listed in Thomas (1981) are based upon mistaken identifications (E. Campbell pers. comm.)). The Pictish distribution coupled with the widespread occurrence of small numbers of E-ware vessels in the interior of Ireland has led Ewan Campbell to remark that direct contact between all these sites and the continent is unlikely. Rather he proposes that the continental trade was controlled by a few Irish Sea sites which then redistributed the imported material and that the occurrence of E-ware in Pictland be viewed in the light of Picto-Scottic political relations and not direct trade. If this is correct then Clatchard was indeed important to be receiving such politically potent goods. Thus the rare jug form, which Campbell regards as characteristic of high status sites, underscores the impression of importance conveyed by the mould material and the hillfort defences themselves.

On the basis of rampart layout and size, location and artefactual evidence, Clatchard Craig appears to have been one of the key strongholds of Fortriu. For this reason it must be used with caution as a model for other class III sites. For instance, it seems unlikely that all class III sites will produce similarly rich finds or were of comparable status to Clatchard. Due to its location overlooking the Lindores gap through the Ochils it was likely to acquire particular importance and in this respect deserves to be compared more closely with Dundurn than, say, Jackshairs (no. 18). In addition, its plan is slightly unusual, the layout of its ramparts is more spread out than those of other members of the group. This wider spacing made the

intramural areas into useful residential zones, work spaces or storage areas and suggests a degree of social or functional differentiation not matched at other class III sites. In fact, this is an approach to the use of space which is analogous to that which is characteristic of nuclear forts (class V). Incidentally, the excavations reveal no clear evidence of what, if any, use was made of these intramural areas, but then given the narrowness of the trenches this is not surprising.

Nevertheless, it seems on balance that class III forts are more likely to be early medieval than Iron Age in date. Besides the evidence from Clatchard, there are several sites in Pictland which share the characteristic design of multiple close-set ramparts, surrounding a compact site. Inchtuthill we have already mentioned, and Alcock has argued that the fortifications at Clunie and Dunsinn͡an are likely to be of early historic date (1981). In his summary discussion of the early historic fortifications, Alcock drew attention to two features shared by our class III forts: their relatively low altitude and their locations in places of 'recognizable strategic purpose' (ibid:180).

Class IV: Ringforts

(nos. 10, 30, 31)

The ringfort, as described by Feachem (1955:77ff), essentially consists of a circular stone-walled enclosure (between 15-30 m in diameter) with walls perhaps 4 m thick pierced by a single entrance. They are not usually sited in what are conventionally thought of as defensive situations, and it has long been recognized that the best preserved examples are

found in upland areas of northern and western Perthshire, such as Glen Lyon and Tummel Bridge (MacLagan 1875:85, Christison 1900:108, Watson 1913, 1915). In fact, in the Marginal Lands Surveys they are described as 'duns of the Tummel type'. At the time Feachem was writing in The Problem of the Picts, little research had been conducted into their archaeology, and consequently he tentatively suggested that they represented farmsteads of the first millennium AD. He also postulated that their form, which bears a strong resemblance to the Irish cashel or ringfort, might indicate that the builders of these structures were Irish descendants, namely Scots migrating eastward (1955:72).

Since then some research has been carried out, principally by the late Margaret Stewart, and it is now possible to produce the distribution maps that Feachem lacked (see fig. 3.10). Excavations have confirmed their status as farmsteads, producing evidence for primary grain processing (kilns and querns), iron working and domestic occupation, but yielding little of dating value and no ceramics (DES 1969:35, 1976:47, 1977:27).

Margaret Stewart, the expert on these sites, favoured an interpretation which linked the ringforts with the presumed eastward expansion of Christianity from Iona led by the Columba's successors (1969). This interpretation explicitly sought to explain their 'Irish' appearance in terms of their concentration along the routes into Pictland from Argyll: the western glens of Perthshire. Aside from the formal resemblance of these simple structures to Irish ringforts, this view has little to commend it, depending as it does on a strong Columban presence in Pictland which is hard to substantiate (Hughes 1980:38-52,

Anderson 1980:132). A less 'invasionist' explanation of these sites must be sought in their archaeology and radiocarbon dates. The only available dates come from Litigan, near Aberfeldy (DES 1969:35), where the depth of deposits was shallow and the precise context of the samples is not specified (fig. 3.11). It seems that charcoal from the centrally located hearth provided the charcoal sample which produced an age determination of 930±90 ad (R/2728/1), while from an unspecified context came a sample of hazelnuts which produced a date of 1872± 100ad (R/2728/2) (A. Morrison pers. comm.). Discounting the hazelnuts as the recent work of squirrels, this leaves a single date, which certainly supports Feachem's belief that ringforts were not Iron Age, but were of medieval date. It does not, of course, help us to understand the origins of such settlements, any more than it permits us to discover the social conditions which led to the building of enclosed farmsteads. What the date does do is allow us to recognize the existence of a particular form of early medieval settlement, and it thereby hints at the possible importance of such sites in the history of rural settlement in this part of Scotland.

The literature on Irish ringforts is ever increasing as more of these sites are excavated. The classic study is still Proudfoot (1961), although in the light of recent excavations his interpretation would now be regarded as over generalized, since it can now be seen that sites which are termed ringfort, rath and cashel were occupied by quite a wide band of the social spectrum. The important point about these walled (cashel) or bank-and-ditch (rath) enclosed farmsteads is their date: the evidence is strongly in favour of the opinion that these ubiquitous

features of the Irish landscape are predominantly a phenomenon of the Early Christian or early medieval period and only rarely do they appear earlier (Warner 1981:46ff, Lynn 1983). The preponderence of these sites in Ireland, where there are estimated to be 30,000 - 40,000, tends to make them seem an exclusively Irish type of monument, but as Lynn has pointed out: similar sites can be documented in several areas of Celtic Britain in the late prehistoric and early historic period (1983:50).

As the distribution map in figure 3.10 shows, ringforts have been recorded in the ~~Strath~~Tay area and further north. This apparent distribution is probably skewed by the intensity of fieldwork in that area, and it now seems that it extends into the study area. Watson suggested as much many years ago when he wrote:

> The basin of the Tay contains many ancient circular fortified dwellings built of dry stone, and resembling northern brochs in thickness of wall and manner of entrance, but of a style of masonry inferior to that of brochs. These circular forts or 'castles', as they are called locally, are not confined to the basin of the Tay: they are found on the north side of the Forth, from Dunblane westwards through the Vale of Menteith, where they are called 'Keirs' (1926:69).

So far in Strathearn, only three instances of ring-forts have been documented as upstanding monuments and one one of these has since been destroyed. The destroyed site seems, from an eighteenth century description, to have been located within the Roman fort at Fendoch and to have been built against or over the Roman wall (OSA 12:744). This argues for a Pictish or medieval date. The ring-fort, being a farmstead, is to be expected in an arable setting, so at first sight the shortage of examples in Strathearn as compared to Glen Lyon is disconcerting. However,

when we take into account the relative intensity of agricultural activity and development in Strathearn as against the western glens of Perthshire, it is clear that sites in Strathearn proper will have suffered far more attrition. This is in effect merely to restate J.B. Stevenson's observations about the dynamics of monument survival and discovery in upland areas (1975).

Class V: Nuclear Forts and Multi-phase Citadel Forts

(nos. 6, 12, 14, 26, 36)

As a category of monument the nuclear fort has proved one of the most enduring and indeed useful archaeological constructs of of post-war archaeology. Since R.B.K. Stevenson's initial paper (1949) the concept been the subject of serious academic debate. The main point of debate has concerned the unity of the design. As is well known, Stevenson originally developed his term to describe a number of Scottish sites which consisted of enclosure walls linked to, surrounding or in some sense focused on a central enclosure which formed the nucleus of the site (fig. 3.12). Stevenson also noted that where evidence was available such sites produced artefacts of Dark Age date and occasionally could be identified with places mentioned in early medieval documents. It is clear from the plans presented here and by Stevenson, that in terms of the organization of space such sites have more in common with the motte and bailey (as Stevenson himself points out) than they do with any of the other types of hillforts already mentioned. The hierarchical ordering of enclosures is the key distinquishing trait of class V sites. Further observation revealed that such sites were often located on rocky eminences, near good agricultural land in places of

strategic importance (Alcock 1981, 1987b).

The main criticism or qualification of this concept was articulated by Feachem and concerned the unity of the plan. He argued that these were not new foundations but reoccupations of Iron Age forts (see for instance his descriptions of Dunadd, Dalmahoy and Dundurn in 1963: 108, 136, 146). The implication clearly was that, the overall design was to a considerable extent governed by the layout of the Iron Age features. Recent excavations at two forts, Dunadd and Dundurn, have confirmed that their plans are substantially if not wholly of the early historic period (Lane 1980, 1981, Alcock & Driscoll 1985). Neither produced structural evidence of Iron Age occupation, but they do demonstrate that the plans, as they finally appear to the field archaeologist, are the results of several phases of construction and represent long periods (in some cases centuries) of development spanning the early historic period.

Closely related to the nuclear fort in design and siting are a group of forts which do seem to represent the reuse of Iron Age sites in later, probably early medieval times. These 'multi-phase citadel forts' first received serious attention in Feachem's contribution to The Problem of the Picts (1955:76ff), an essay which attempted to synthesize the nuclear fort evidence with other less well know evidence for Dark Age fortification. These sites feature a central thick-walled, dun-like citadel surrounded by a series of enclosures. The striking difference between these sites and the nuclear forts is that in the multi-phase forts different constructional phases can be clearly identified by the character of the masonry without excavation. Although Stevenson suggested that different episodes of building could be distinguished in the

field remains of nuclear forts, on the whole they appear as a much more unified set of features than do the multi-phase forts. None the less, despite these differences in origin and in field appearance, these two types of sites seem to employ a similar architectural ideas in dealing with space. In Hillier's terms they are 'deep' (Hillier et al 1982, Hillier & Hanson 1984), that is one must penetrate several enclosure walls to reach the interior. Before considering these multi-phase citadel sites in detail (nos. 6, 14, 26), it is appropriate to recount briefly the results of recent excavations at Dundurn, which if nothing else provide a starting place for assessing the complexity of the building history of these sites.

Dundurn

This is a slightly revised version of the published interim report (Alcock and Driscoll 1985). The location of the site (no. 12) is indicated in figure 3.1 and the location of the excavations undertaken by Alcock is indicated in figure 3.13.

Dundurn occupies a craggy pyramidal hill which rises some 60m above the flood plain of the River Earn, and dominates Strathearn where it starts to open out below Loch Earn. The hill bears traces of very ruinous stone walls, apparently in the form of a citadel surrounded by defended terraces. These remains have long been identified as the dun duirn mentioned as under siege in the Iona annal for AD 683 (Alcock 1981). It seems likely that it was an outpost of royal power in Fortriu, serving to guard the main west-east route from Dunollie, Dunstaffnage and Dunadd in Dal Riada to the Pictish centres of Scone and Forteviot. Two

generations after the unification of the kingdoms of the Picts and Scots by Kenneth mac Alpin, Giric mac Dungal (Donald) died at Dundurn in shadowy circumstances in AD 889.

Summary of Occupation Sequence

The patterns of activity revealed by excavation reflect frequent remodelling and alteration of the building layout and design, as is to be expected on a site occupied, apparently continuously, for several centuries. The scale of the research does not permit precise interpretation of the various structures, but because of the value of this well preserved sequence they will be outlined in some detail. The two major areas of investigation, the summit and the terrace immediately below it to the south, were only linked stratigraphically by a layer of destruction debris from the timber citadel. As a result some questions exist about the precise relationship between the two sequences of buildings, which the radiocarbon dates cannot resolve. Figure 3.14 summarizes the major building episodes in the two areas and their associated radiocarbon samples. The periods in the diagram mark radical rebuilding episodes, and represent only the most economical interpretation of the relationship of the summit and terrace: other interpretations are possible. It should be stressed that building and remodelling occurred sporadically on a small scale in between these major efforts.

Period I

IA: Timber Phase

The earliest evidence of activity is deeply stratified, 1.5m

below any of the features now visible. These waterlogged deposits contained large quantities of well preserved organic material which complicated excavation and prevented their complete excavation. The very earliest deposit, of undetermined depth but certainly over 0.5m, remained uninvestigated. It was apparently a domestic midden composed largely of bone, some of which provided the C-14 sample coded GU 1043, but which also produced a crucible base. The depth of deposit and the general configuration of the terrace strongly suggest the existence of some sort of revetting, palisade work or walling along the line of the much later massive stone rampart. If this putative palisade was on a similar line to the later rampart, it may be related to the grooves, apparently intended to bed horizontal timbers, which had been quarried through a rib of rock beyond Cut 101/401 to the east. Neither the existence of surviving revetting nor its alignment can now be demonstrated, since it was not possible to look below the later rampart.

A wickerwork floor of hazel was laid directly on this debris and was pegged in place; somewhat later a clay-lined tank of stone-slabs was built upon it. Altogether the impression is of a roofed space although the character of the building - domestic or industrial - could not be determined. Immediately upon this wicker surface were a number of worked oak timbers which had presumably formed part of a building. One of these timbers (DN 122) was a massive, rough hewn, segment of a log which may have derived from a palisade. This putative palisade element, dated to AD 608 +15/-30 (UB 1321-1325), may relate to the revetment and rock-cut groove which retained the midden from sliding down the hill.

The oak timbers mentioned above formed the base of a deep deposit of vegetable matter including bracken, twigs, bark, wood shavings, grasses, ferns and mosses. The bracken, which predominates, probably represents flooring, bedding or possibly thatching which had been periodically discarded as it was renewed; unburnt hazel twigs from the vegetable deposit produced two radiocarbon dates (GU 1042, HAR 2519). During these cleaning operations various other debris became incorporated into the deposit, including a large quantity of animal bones, a range of artefacts and some faeces. Palaeobotanical analysis, which reveals something of the local environment and agricultural regime,will be discussed below with the faunal evidence. Not surprisingly this was the richest artefact-containing layer: it produced evidence for craft production in leather, bone, antler, and fine metal along with what should probably be seen as domestic rubbish. The most exceptional finds are discussed below.

The use of wattling for flooring and walking surfaces was encountered on Viking Age sites in Dublin (Wallace 1982:273, Bradley 1984:114-5) and was a feature of the twelfth century deposits excavated at Perth High Street (Bogdan and Wordsworth 1978:20). However, the best parallel for the construction techniques observed in these waterlogged deposits is provided by an Irish crannog of early historic date. At Moynagh Lough crannog the artificial island is composed of deposits of earth, stone, brushwood and midden material all of which are held in place by wattle screens (J. Bradley pers. comm., Youngs et al 1985, 1986). The same situation pertained in Cut 101/401, where the various materials composing DN 426 were used to build up a dry surface and were then stabilized with wattle screens pegged

in place.

Period IB

The first clearly recognizable building on the summit was a nailed timber structure known only from its burnt remains. Its plan is conjectural, but if it occupied the level area of the summit it would have enclosed an area about 20 x 15m internally. The concentration of burned debris still in position, along with the location of rock-cut beam-settings, suggest that the structure extended some 4m down the slope from the level area of the summit boss. Upon the summit were two distinct levels of heavy paving, probably corresponding to the two periods of the summit defences; but the interior of the citadel was not further investigated.

The building which may be described as the 'primary citadel' had two clear structural characteristics. Firstly, to judge from the destruction debris, timber work, including both oak beams and hazel wattling, had comprised the major part of the structure. The bedrock under the wall core appeared to have been scarped and levelled to provide footings for timber members. Adjacent to the excavated area, where the front lines of these walls crossed over outcropping ridges of rock, channels up to 70mm deep had been quarried out, apparently to accommodate horizontal timber beams. The topmost rock boss of the hill, the so-called St. Fillan's chair, had been similarly shaped to accept a horizontal timber. These rock-cut features resemble those observed on the terrace and may therefore be an indication of contemporaneity or of continuity of building practice. Iron nails played a prominent role in the construction of the building. This recalls the nailed

timbers at the Pictish stronghold of Burghead, Moray, but the comparison is not exact: few of the Dundurn nails were substantial enough to have fastened timbers comparable in size to those at Burghead (between 200-300mm (Young 1891:444)), nor does it seem that they fastened a timber framework for a dry-stone rampart. It is probably better to compare them with the nails from Dunadd and to regard them as having been used for general carpentry tasks. Secondly, much of the stone used in the first period of paving consisted of blocks and slabs of Old Red Sandstone; on geological grounds it seems that these had been quarried some 15km from Dundurn. A single block of tufa with adhering mortar probably travelled a similar distance from a Roman fort, either Dalginross 7.5km or Strageath some 20km away. These suggest that the builders commanded a wide range of resources. Four radiocarbon dates are available from oak beams and hazel twigs (presumably from structural wickerwork) from the primary citadel. They are: HAR 2000, HAR 2001, HAR 2002, and GU 1041 (from the burned debris which had been dragged down the slope).

The artefacts from Cut 001 relating to this first fort likewise indicate a strong command of economic resources. Over 100 nails, ranging in size from large-headed tacks 45mm long to robust spikes over 170mm long, indicate that both smithing skills and iron were available for building and joining tasks which might have been accomplished without drawing on such materials or labour. Access to fine quality goods is attested by a silvered bronze strap-end discussed below. Objects mixed in with the destruction debris encountered in Cut 101/401 include a fragment of imported glass and a crucible sherd.

The radiocarbon dates for this first citadel are slightly later than those dating the most active use of the midden, but not significantly so. Thus, the primary citadel may have been contemporary with the waterlogged terrace sequence, but it is equally likely that the building of the citadel coincided with the rehabilitation of the terrace; both are major events in the site's architectural history. The rehabilitation involved the dumping of up to 0.5m of clay and earth over the damp midden, presumably to create a dry, level building or living surface. The nature of the spaces defined by stone walls and post holes on the newly surfaced terrace is obscure; they may have been either domestic or industrial. In any event, the change from a midden to a living or work area marks a reorganization of the site. From the levelling deposit came an E-ware sherd, a rotary quern fragment and a mould for a stick pin with a boss-ornamented head (see fig. 3.15). From the deposits associated with the buildings came a few iron objects including a possible knife, as well as two small whetstones.

Period II: The Nuclear Fort

Burnt timbers, scorched rubble, vitrified rock and occasional nails, pulled down from the primary citadel, extended into Cut 101/401 where they overlay the upper terrace. This burnt debris ran under the massive stone rampart built around the upper terrace and provided the sample for GU 1041 which gives a terminus post quem for the rampart construction. As revealed by the excavation in Cut 101, the defensive wall of the upper terrace or enclosure was a massive structure of dry-stone rubble. The inner face was a roughly coursed wall using slabby stone,

including Old Red Sandstone slabs. It still stood some seven or eight courses, (Ø.8-Ø.9m) high, but was in a frail state, especially because some of the slabs had split and perished. It is also possible that horizontal timbers had been incorporated in the wall-face, and that their decay had caused further collapse; but certainly no nails were used.

The core of the wall was founded on an earthen slope of about 25 degrees from the horizontal, and consequently, it had slid down hill. As a result, the core was found to be loose and unstable, and its excavation was distinctly hazardous. Moreover, not only had the upper courses of the revetment collapsed outwards; the lower courses appeared to have slipped downwards and outwards as well. Consequently, in Cut 1Ø1, no front revetment remained in place. Its original position could be inferred from a concentration of tilted sandstone slabs, lying upon a pitching of massive boulders. These had been set in the slope but not so deeply as to be founded on solid rock. If we accept that the pitched boulders and the Old Red Sandstone slabs mark approximately the line of the front face, then the wall was some 8m wide. Because of the slope of the hill, its face must have been not less than 4m high. These dimensions account for the enormous quantities of rubble that litter the slopes of Dundurn, around the upper and lower terraces.

In the interior of the citadel, the original sandstone paving was overlaid by a pitching of both split and whole river-rolled boulders, cobbles and gravel. Similar rubble overlay the tenuous remains of the burned primary citadel, and appeared to represent the core of a dry-stone rampart, enclosing an oval area. Two revetment slabs were still in position at the front of

this, giving a width of about 4m. On the whole the rubble was structureless, but occasionally lineable stones hinted at the decay of timber beams which had lain parallel to the face. The scarcity of nails, and the failure to make use of the rock-cut timber slots were major criteria for distinguishing two structural phases in the citadel. One feature of the citadel walling and that of the terrace rampart deserves special mention. In both, the predominant building material was not rock quarried immediately from the Dundurn hill, but river boulders and cobbles, whole or split, which can only have been derived from the valley bottom. This reflects the same importation of building material as the Old Red Sandstone slabs of the primary citadel, from a proximate source but on a far greater scale.

Turning to the upper terrace rampart: behind its inner face was a deposit of large boulders. The base of these lay only slightly above the building level of the wall, and the stones against it fitted fairly closely to irregularities in its face. There can be no doubt that this rubble had been deliberately placed, not long after the wall was built, in order to support the face which was already showing signs of collapse. None the less domestic or industrial activity continued on the terrace as a hearth, a series of rubble walls and a few post holes attest. The artefactual evidence likewise supports the case for continued activity: a sherd of imported pottery, iron knives, a whetstone, a padlock spring, and several glass items including the remarkable glass boss (fig. 3.15), which came from the topsoil and presumably relates to the late period of activity.

Three radiocarbon dates from the consolidation and late terrace occupation deposits provide a bracketing date for the

rampart construction and a terminus post quem for the activity on the terrace. They are: GU 1040, HAR 2003, HAR 2518. Unfortunately there was no material suitable for radiocarbon dating of the stone-built summit enclosure, nor are the finds helpful in that respect. It seems reasonable however to suggest, on the basis of similarity in building materials, that the construction of the rampart coincided with the rebuilding of the citadel.

Earthwork Enclosures and Cultivation Terraces

Immediately west of the outermost stone wall on the north side of the hill, and almost at its foot, is a roughly rectangular enclosure in the form of grassy banks suggesting earthwork rather than stonework. It has always been assumed that this formed an extension of the stone fort; but close examination on the ground shows that it lies contiguous to the later multi-ramparted fortifications without physically articulating with them. Cut 501 examined the west bank of this enclosure, and showed that it was essentially a rampart of clay and gravel, won largely from an external ditch. No artefacts or other dating evidence were found. The precise dimensions of the bank could not be established, because there was no clear fossil ground surface to distinguish the undisturbed, naturally deposited clay and the gravel from the humanly-made bank.

Immediately west again of the earthwork enclosure are four steep grassy scarps, which curve round the west end of the hill. As long ago as 1939, Angus Graham suggested that these were cultivation terraces, and this seems more reasonable than an explanation in military terms. It seems likely, indeed, that both the cultivation terraces and the earthwork enclosure should be

considered together, and interpreted in terms of an extension of farming up from the valley floor on the lower skirts of the hill. On the current view that terrace-cultivation was introduced to southeast Scotland by Anglian colonists in the sixth and later centuries AD, it may be that the terraces and earthwork enclosure are contemporary with the fortifications, and represent Pictish agrarian activities. On the other hand, the use of large orthostats in the enclosure bank and entrance way can be paralleled in pre-Improvement townships and their dykes. Consequently, some recent (perhaps eighteenth century) period of intensive agricultural activity cannot be wholly ruled out.

Finds

Artefacts were not plentiful in either season, but were sufficient to provide some evidence about the domestic regime, manufacturing activities and commercial connections. The collection represents the only group of material besides that from Clatchard Craig which can, with some confidence, be described as deriving from a noble residence in southern Pictland. The general picture which the artefacts provide is of a strongly defended homestead, which was intensively involved in the local agrarian economy, but which also had access to goods imported from as far away as the continent, perhaps via the Irish Sea.

Domestic objects of unexceptional quality occurred sporadically throughout the sequence, and include items like iron padlock parts, whetstones, a spindle whorl, and an iron knife-blade of Late Saxon or Viking type. Rotary quern fragments show that grain was processed on site, at least at the household

level, while the faunal evidence (discussed below) suggests that during period IA livestock rearing was actively pursued.

Evidence for craft production was generally confined to the terrace area in contexts that pre-date the destruction of the primary citadel. In part, this may reflect preservation conditions, but since it applies also to the durable debris of metal working it could mean that a shift in industrial activity to somewhere down the hill followed the fortification of the terrace. Fine metalworking evidence was sparse, consisting of two crucible fragments, and a mould or motif-piece (described in Alcock 1980b:344-5). Related to this metalworking may be the fragments of imported glass vessels. Leatherworking evidence was understandably confined to the waterlogged deposits, and consisted of scraps of leather which appear to be discarded trimmings. Possibly related may be a fine bone needle and a bone object which is either an awl or a crudely fashioned pin. A tip of an antler tine, which had been sawn and snapped of, was the only evidence of working that material, while an apparently unfinished animal-headed bone pin shows that bone was also being worked on site.

Evidence which supports the notion of a high social status for the site includes fine jewellery, footwear and imported pottery. A single sherd of E-ware comes from a IB context on the terrace, while from a period II context comes a sherd believed to be a Rhenish import (Cathy Coutts pers. comm.). The outstanding find from period IA was a leather shoe of single-piece construction with all over stamped ornament (fig. 3.16). The shoe is unique in northern Britain, but formally resembles some of the best shoes from Early Christian sites in Ireland (Lucas 1956).

However, the shoe's decoration is utterly different from the Irish examples, suggesting that it was not an import, but the work of a highly skilled local craftsman. The most noteworthy object relating to the primary citadel was the silver-plated bronze strap-end or dangle (fig. 3.15). The shank, which has a single rivet for attachment to a thin strap or lace, was ornamented with a horse's head with bulging eyes and nostrils, reminiscent of the horse-heads on early cruciform brooches. The free end was in the shape of a letter B, decorated in low relief with an animal biting its fore-leg (fully described in Alcock 1980b:345-7). The most remarkable find of all was unfortunately made just below the surface on the terrace. It was a glass boss, 15mm high, in the form of a dome of swirled dark green and white glass, decorated with five inlays and five bosses of blue and white spirals (fig. 3.15). The base is perforated. This delicate and virtuoso object may have been the head of a pin, and Irish parallels are known for this. But it is perhaps more likely that it was one of a series of ornamental bosses for a chalice, crucifix or reliquary. The design of spiral-decorated bosses, massed on a larger boss, finds its closest ornamental parallel in the Nigg cross-slab (see also Alcock 1980b:347).

Environmental and Faunal Analysis

The rich waterlogged midden deposits of the period IA occupation on the terrace provide the finest collection of plant and animal remains to come from a mainland Pictish site. Pollen and fossil plant (i.e. macroscopic) remains provide the evidence for an environmental reconstruction which suggests that Dundurn hill was relatively free of woodland and was covered by meadow

and patches of bracken and scrub (Brough 1980). The presence on the site of species native to woodland, meadow and riverside environments shows that not only was a variety of local resources present, but that they were exploited. In particular the indirect evidence for local agriculture, indicated by the presence of Plantago lanceolata pollen and Sitophilos grain weevils (John Lock pers. comm.), is complemented by direct evidence for the consumption of 'wild' foodstuff: wildcherry pits and hazel nut shells. Direct evidence of grain consumption occurred later in the sequence; a rotary quern fragment was found in a period IB deposit and carbonized grain was stratified in the destruction debris of the primary citadel. The species recognized were Hordeum vulgare, hulled six-row barley, and Avena sp., wild or cultivated oats (Camilla Dickson pers. comm.).

Although most contexts produced some small quantity of fragmentary burnt bone, only the collection of unburnt bone from the period IA midden merited detailed analysis. Preliminary results show the collection to consist of over 99% domesticated livestock - cattle, pig, sheep/goat. Cattle were far and away the most important, both in absolute numbers and in terms of contribution to the diet. On a simple bone fragment count, cattle account for 64%, pigs 28% and sheep/goat 8%. Among the cattle the predominant age of death was fairly young (less than 2-3 years old) and a surprisingly large number of neonates were identified (over 4% of the identified fragments). Taken together these suggest that the residents of Dundurn had direct access to the products of cattle herding in what may have been a dairying regime. The neonates would also have provided fine leather or vellum.

Radiocarbon Dating and Historical Context

A total of ten conventional radiocarbon dates is available for Dundurn; the specific context and composition of the samples are summarized in figure 3.17. In addition, a high-precision 'wiggle matched' date based upon a combination of multiple radiocarbon age estimates (UB 1321-5) and dendrochronology provides the most solid scientific date for the site (see Pearson et al 1983 for details of the method). As a group the calibrated dates establish that the occupation falls in the second half of the first millennium AD, which corresponds to the two documentary notices of activity at Dundurn. The high-precision date of 608+15/-30 secures the identification of the fort on St. Fillan's Hill with the notice of a siege in the Iona Annals sub anno 683 of an 'obsessio Duin Duirn' (Alcock 1981). The timber which provided that date came from a large tree which must have been felled before the siege. It had been used in a substantial structure, the putative palisade of phase IA, but it is uncertain whether this was still standing in AD 683. In any case, the date merely supplies a terminus post quem for the beginning of the occupation sequence.

It is now generally agreed that the error value of conventional radiocarbon dates should be cited at the 2-sigma level (i.e. at twice the quoted laboratory error). Following this course the various age estimates from the latest and earliest contexts overlap substantially and are statistically indistinguishable at a 95% confidence interval. The dates from the period IA terrace midden (GU 1042, GU 1043, HAR 2519, UB 1321-5) are somewhat earlier than those for the first summit

structure (HAR 2000, HAR 2001, HAR 2002, GU1041). The difference in the ranges of dates is insufficient to determine whether the primary citadel should be placed in period IA or IB, nor is it possible to use the radiocarbon dates to determine the precise order in which the various buildings were erected. The attractive theory that the primary citadel was burnt down during the siege of 683 can be comfortably accommodated by the radiocarbon dates, but they cannot be used as a proof. The period II nuclear fort, which on stratigraphic grounds follows hard on the heels of the destruction of the primary citadel, could be the site referred to in the 889 obit of King Giric, son of Dungal (or Donald) reported in the Scottish King List. It is hard to see trends in no more than two documented dates; the radiocarbon dates confirm what might have been expected: Dundurn's abandonment in the tenth or eleventh century follows the union of the Scottish and Pictish kingdoms, because it had lost its strategic raison d'être.

It has been necessary to go into such great detail because the archaeology of Dundurn underscores many of the economic issues raised in Section II and the structural details shed light on the immediate issues of analysing the hillforts of the valley. There are several sites which on the basis of field remains would be attractive candidates for Pictish forts. These are the multi-phased citadel forts mentioned above.

Chief among these is Carnac, Moncreiffe Hill (no.6), which has been long identified with Monad Croib, the site of a battle between rivals for the Pictish throne in the early eighth century. The annalist does not mention a fort specifically, but it seems reasonable to identify the site mentioned in the annal with the

fort occupying an impressive location on the ridge between the confluence of the Earn and the Tay. This identification is discussed in greater detail in Chapter 12.

As may be seen from the plan (fig.3.12), there is a central enclosure set on the cliff edge within two concentric enclosures, the outermost of which has a further enclosure appended. The inner enclosure or 'citadel' is a thick walled dun-like structure with a suggestion of an intramural chamber, which encloses circular house sites. Its construction is visibly different from that of the large oval enclosure which surrounds it and a well or rock-cut cistern. The citadel enclosure contains a higher portion of stone than do the outer enclosures and is in a less ruinous state. The principal oval enclosure by itself strongly resembles an Iron Age contour fort and could be happily included with our class I forts. There are a few reasons, however, why, when considering this site, we should include all the structural features as belonging to a single plan. Firstly, even if the walls were old, say 500 years old, they would still have been far more substantial than they are now an additional 1000 or so years on, and we may suppose that they were still functional in some respects. We do not know much about how the outer enclosures were used, they may have served adequately as cattle pens, work areas or residential zones for dependent members of the household. Even in a ruinous state the walls help create useful terraced areas for building and certainly provide an impressive setting through which to approach the central enclosure. There is, however, a feature of the site (not entirely evident from the plan) that penetrates the outer set of older looking enclosures, which will have served to maintain the functional importance of all the

features of the plan. This is the monumental entrance ramp which serves as the main access from the south. The south approach to the fort is protected by a cliff approximately 20-30m in height. Running along the face of the cliff from east to west is a ramp which is wide, level and gradual enough to suit wheeled traffic. It creates what is easily the most magnificent entry way to any of the Strathearn forts and is apparently a unique feature among Scottish hillforts. The nearest rival grand entry way in the valley is the embanked entrance passage at Dundurn - a distant second. Given its size and complexity it is hard to avoid concluding that Moncreiffe Hill was as prominent in the political landscape as Dundurn. This point is underscored by its pivotal location overlooking the junction of the regions of Strathearn, Strathmore and Gowrie and its overview of the main riverine arteries of Southern Pictland.

Far less centrally located or visually imposing , but no less complex, is Castle Law, Forgandenny (no. 14), which bears a resemblance to Moncreiffe in so far as the central enclosure appears to sit within ramparts of different constructional characters and date. As mentioned when discussing Abernethy and the other class I forts the excavations of the inner enclosures revealed limber-laced ramparts and Iron Age pottery as well as a 'light brown pottery harder in substance and glazed' (Bell 1893). Judging from the current state of the site the excavators simply followed the innermost walls and ran a couple of narrow trenches across the interior. It would seem that these excavations were not observed with even as much attention was paid to those at Abernethy. This is important because the 'light brown pottery' is a hard-fired wheel-thrown earthenware made from

a buff paste some of which bears a green glaze. It must date to the twelfth century or later. There is no indication of the provenance of any of the finds, so is not possible to know what bearing this medieval material has for the interpretation of the structural phases. The field evidence and the excavated material point to a multiperiod occupation, but in a very ambiguous manner. They provide no solid evidence for a Pictish phase other than the character of the fort's plan.

A third instance of this type of plan, on the same scale but of a simpler design, is Castle Craig, Pairney. John Sherriff's excavation, occasioned by the quarrying of the hill, sectioned the outer rampart, which turned out be a 2m wide earthen bank loosely revetted with stone. He also examined a small area of the interior just behind the rampart, where he discovered several stone covered pits which yielded pottery and a fragment of a jet ring both of which would be at home in the Early Iron Age (1984). There is no better dating evidence available, but this large contour enclosure fits well in our group of class I forts. On the summit of the hill, well within this outer rampart is a thick walled dun-like structure, built entirely of stone. Its masonry is markedly different in character from the outer rampart as well as being in a far better state of preservation. The summit structure alone could belong to the later Iron Age: however its location within another enclosure makes it more reasonable to consider it as another example of Feachem's multi-phase citadel forts, so a historic date might be more appropriate.

Immediately across the Pairney Burn from Castle Craig (no.36) is a similar site discovered by Sherriff (DES 1978:95). It is on a far smaller scale and differs in detail from Castle

Craig. The entire plan of both the inner and outer enclosures is far more modest and the two elements look contemporary. The proportions of the fort resemble a miniature motte and bailey; no date between 400-1200 AD could be ruled out a priori.

Class VI: Medieval Earthworks (nos. 33, 34, 35)

All of the sites in this group have fortifications of medieval date, but have features which might be earlier (fig. 3.18). They have been included both for the sake of completeness and because, as Alcock has noted, there is a marked tendency in Scotland to locate castles on the sites of early historic fortifications (1981). The sites in this group are so different that they require separate discussions. The best candidate for a Pictish site is Ha' Tower (no. 34), a very ruinous early towerhouse set within a compact set of earthworks, which form a D-shaped enclosure backing onto a long, steep slope. The earthworks fit snugly around the tower and swell out to form a sort of bailey. This may be taken to indicate that they are contemporary with the tower, but without the ditch enclosing the tower the remaining earthwork resembles the plans in class IIIb. No doubt any pre-existing earthworks would have been reworked with the building of the tower, therefore excavation alone can determine the age of the enclosing earthworks. Even if they are contemporary with the tower they may point to the transition between two traditions of fortification.

Gleneagles castle (no. 33) is a fifteenth century tower house set within some earthworks on a small natural(?) hill in the stream which drains the glen. It has been suggested that the earthworks might date to the Iron Age (OS record card). This,

however, seems unlikely as they fit the tower snugly and unlike Ha' Tower the earthwork features cannot be seen to form a set of coherent features without the castle. None the less the possibility remains that the earthworks were modified to construct the castle. If so the siting is more suggestive of an early medieval date than prehistoric.

The site of Inchbrakie Castle (no. 35) is located within an oval earthwork enclosure, but there are no ruins to be seen other than the bank and ditch. In the Marginal Lands Survey, Kenneth Steer commented, 'the earthwork is obviously of medieval date, although the shape and small size of the ditch are unusual'. It is unusual also in terms of the area it encloses and its location. It rivals Rossie Law, the largest fort in Strathearn, in total area and is located in a poorly drained low-lying area. Because of these qualities it is just possible that this rampart marks the line of an earlier, perhaps Iron Age enclosure, but on balance it seems more likely it represents an effort to keep the castle dry.

Summary of Hillfort Survey

Having looked at the hillforts in some detail, it becomes apparent that identifying Pictish sites on the basis of field evidence is difficult. Although we can identify characteristics which generate typologically different groups, in the final analysis positive identification requires excavation. Thus of our best candidates for Pictish sites, the class V forts, only Dundurn is certainly Pictish, and the remaining four are possibilities of greater and lesser degrees of likelihood. The

unifying characteristic of these sites is their plans which stratify the internal space into two or more distict zones. This stratification develops from a very basic distinction between living area and an outer activity area. This exists in any settlement, but the important point is that it is not always expressed in stone. This distinction seems to take on added importance in our period: in the more complex nuclear forts it appears as though provision has been made for a great number of different activities or living compounds. A significant result of this segregation is that there is an increase in the 'depth' of the central living area from the outside. This tendency reaches it highest expression at places like Dundurn and Carnac, Moncreiffe Hill. This is not the place to examine all the implications of this architectural stratification, but it is does seem that the degree of complexity may be a good index of the position of the site within the social/settlement hierarchy. This is important because not only do we need to begin to identify Pictish sites, we need also to begin to differentiate among them.

Aside from the differentiation that seems to exist between say Dundurn and Pairney, it likely that there are other elements in the settlement structure to be discovered. Thus ringforts, where they can be identified, may represent households of minor nobility or freemen. And somewhere in between ringforts and the elaborate occasionally royal nuclear forts may belong some of the compact multivallate forts of class III. Like the class V forts they are situated in places which are of strategic significance and in areas of good agricultural potential, yet they do not exhibit the preference for craggy eminences so characteristic of nuclear forts. The uncraggy locations probably reflect the local

topography as much as anything, but the concept behind their plans is markedly different from that of the nuclear plan. Their elaborate ramparts clearly indicate a social distancing from their surroundings, but they exhibit no internal differentiation of space - at least none that survives as an upstanding feature. Do these class III sites perhaps represent an older (or later) tradition of elite architecture from that at Dundurn? Or are they simply sites with shorter histories, ones which were too short lived to develop the elaborate subsidiary enclosures of a Dundurn? Does the lack of internal divisions indicate that they were the creations of only moderately powerful Picts, *the non-* royal nobility? These are questions for which there are as yet no answers owing to the lack of excavation. At any rate it does seem likely that some of these class III forts are of the early historic period. The parallels to be drawn with excavated sites in class V are suggestive, but arguing across categories tends to undermine the integrity of the classification. The strongest indications that some of these sites are post-Roman comes from the excavated hillforts at Inchtuthill and Clatchard Craig.

In summary then the most likely candidates for Pictish sites to be extracted from the class III hillforts are, in addition to Clatchard, the forts numbered 2, 9, 18, 20, 21 and 29. To this we may add the ringforts though they survive only rarely. Finally, with few reservations, we can include the class V forts. Thus the total population of thirty-seven forts has been whittled down to about fourteen sites of probable early historic date. In the process we have generated some principles which can be applied to identify Pictish sites in the aerial photographic record.

Unenclosed Upland Settlement

Before moving on to consider the cropmark sites, there remains a body of upstanding settlement information to consider. This material has been less intensively studied than the forts by myself and by my predecessors. It is less prominent and therefore more easily overlooked or ignored. The value of landscape surveys of cultivation and settlement remains is indisputable, but because of the comparative lack of study the problems of distinguishing ancient features from ones of relatively recent date are more acute for the inexperienced field worker. Cultivation remains are especially difficult in this respect. These problems have not been made any easier by the neglect of the Ochils and Trossachs by students of upland settlement. Regrettably from our point of view, upland fieldwork in Perthshire has been concentrated to the north of Strathearn. Thornycroft's pioneering work took place near Blairgowrie (1933, 1946), Margaret Stewart's extensive survey projects (including her work on the ringforts) were focused to the north and west and recently Judith Harris has understandably elected to build upon their work by conducting more analytical surveys (1984). The result is that we are forced to consider evidence from outside the study area if we wish to talk about upland settlement in all but the most restricted ways.

Let it first be said that much settlement evidence does exist in the hilly hinterlands of Strathearn. Given our state of knowledge, any opinions formulated about this material are bound to be vague. Broadly speaking it seems possible to distinguish between the hut-circle and cairnfield settlements of the sort

described by Harris, which tend to occur above 300m OD, and sites where ancient settlement and cultivation are intermingled with more recent, but often abandoned farmsteads. The first group, for all its variety and adaptability, seems to be a phenomenon of the late Neolithic and Bronze Age, although dating evidence is admittedly scarce (Harris 1984:214). The other group is more difficult to date, since these sites have not been as well studied and are more difficult to characterize. Perhaps a chronological scheme of the sort developed in the Borders and Northumbria could one day be developed, but at the moment none exists. Aerial photographs taken by the RCAHMS in winter reveal the plentiful existence of roughly rectangular enclosures, field systems and house sites in many areas of the Ochils and in Glen Devon. In these areas it is sufficiently dense make it worth enquiring whether some of this upland agriculture belongs to our period. Unfortunately only two of our hillforts (Dundurn and Forgandenny) have closely related agricultural features, and equally unfortunately they have not been linked to the period of occupation.

Having said just how unpromising the upland evidence is for our purposes, we will return to the topic when we examine the interpretation of aerial photographs in the following chapter.

Crannogs

There are few areas appropriate for the building of crannogs in Strathearn, which explains why they form such a minor element

of the settlement system. Two examples are known from Loch Earn, one at each end. The one at the eastern end is large for a crannog and supports the ruins of a masonry building. Judging from its size it may be a natural island or a partially enhanced rock outcrop and hence not properly a crannog (cf. Morrison 1985). The western crannog shows all the signs of being a typical Scottish crannog. Located near the south bank, it consists of a pile of small boulders which just protrudes through the surface and is impossible to date. Within Strathearn proper scant details of a crannog encountered in the draining of Loch Monzie, north of Crieff were recorded in the nineteenth century (OS record card). Another possible crannog is in Loch Monzievaird, west of Crieff, but this is pure supposition; no close inspection of the site has been made to my knowledge. Given the topography of the valley it is unlikely that many more crannogs existed, because there are too few suitable bodies of water. It may be that Inchbrakie Castle represents a tradition of building strongholds in the marshy Pow drainage, but none has been reported, probably because the drainage here began in the Middle Ages.

It is impossible to generalize about the dates of crannogs. As Morrison points out (1985) they have been dated to the early Iron Age (Oakbank, Loch Tay) through the medieval period until early modern times. Therefore we can have no reason either to accept or reject any of these examples as Pictish sites.

Chapter 10

The Aerial Photographic Record

It must be said at the outset that although the potential of aerial archaeology is great many of the most fundamental problems with its application have not been resolved. We are now well into the second generation of serious aerial photographic research and while most of the methodological difficulties have been overcome the interpretative ones remain formidable. Indeed with the exception of a few characteristic site types like henges, Roman fortifications and monasteries most sites known only from air photos (i.e. AP sites) are difficult to date within a millennium. Most practitioners, it is true, recognize this and are unwilling to separate aerial archaeology from field survey and excavation and as a consequence would see interpretation as an integral part of a broader programme of archaeological research. Attempting to apply our knowledge of upstanding and excavated monuments to the interpretation of cropmark sites is the central interpretative task facing the aerial archaeologist. Yet the interpretative problems persist in part as the result of inadequate interpretative theory.

Whether increased knowledge of the upland settlement systems can contribute directly to our understanding of the cropmark sites is doubtful. Lesley Macinnes in her thesis considers at length the problem of trying to relate upland evidence whether of field remains or from excavation to the aerial evidence (1983). Although she is concerned essentially with interpreting the aerial evidence, the issues she raises are of general importance to any comparison between upland and lowland settlement evidence. There are two difficulties with such comparisons. Firstly,

although upland sites have until recently been easier to locate and therefore excavate, their environmental surroundings alone set them apart from lowland cropmark sites. Sites from the two areas which appear morphologically similar are likely to be engaged in different sorts of agricultural activities and therefore to be socially and economically different. A second even more significant (and generally unrecognized) source of difference between upland and lowland in our period derives from purely social aspects of the settlement system. Given our knowledge of early medieval society and the inferences which we may draw for Pictland (discussed above in Section II), the settlement system must have exhibited hierarchical features. This implies a degree of centralization within the overall settlement system and suggests that some peripheral areas were contributing to the maintenance of centrally located institutions, for instance the churches. Either those living in the hills were outside it or they formed the margins of the system. In either case we should expect that the peripheral areas will exhibit a different, perhaps impoverished, material culture. Therefore the upland evidence provides an inappropriate model for lowland settlement - interesting comparison, but poor analogy.

I do not propose to try and resolve these general interpretative problems here except by suggesting more appropriate ways of employing aerial photographs in historical studies. Nor does this study consider any of the technical aspects of aerial photography. I am very much a consumer of aerial archaeological data, so what follows is a discussion based on the use of previously established techniques on a pre-existing body of data. As such it represents a line of research which may be undertaken

on the vast, ever increasing and under-utilized collections of aerial photographs. Unless otherwise indicated it may be assumed that I am following the guidelines layed down by Hampton and Palmer (1977), Riley (1980), Wilson (1982) and Maxwell (1983).

This chapter consists of an analysis of several hundred archaeological AP sites in Strathearn with particular emphasis on the settlement evidence. The aerial photographic record is broken down into groups based upon general morphology. These groups are described and illustrated. In the course of the descriptive portion it will become clear which sites or types of sites are most relevant to the Pictish period. In several areas of Strathearn the conditions for the production of cropmarks are very good, so the chapter concludes with a presentation of these large cropmark landscapes because they serve to illustrate both the density of settlement evidence and the obstacles to interpretation. The aerial photographic analysis is preceded by a description of the methods of analysis and of the classificatory scheme.

Aerial Photographic Transcription

The photographic collection housed in the archaeology section of the National Monument Record (NMR), Edinburgh provided the data for this study. The collection contains mostly photos taken by RCAHMS during aerial reconnaissance but also includes a large number from the Cambridge University Collection and from commercial aerial photography firms, and a few from other sources. Nearly all of these are oblique photographs taken expressly for archaeological purposes and the majority record

sites which are revealed as cropmarks. A small but significant portion of the photos record both previously known and newly discovered upstanding monuments in upland areas. For reasons which will become clear most of the photos of upstanding monuments are unsuitable for transcription and therefore none are included in the collection of plotted sites.

Although a great many sites are known in Strathearn their distributional significance is difficult to assess. Figure 3.18 shows the total distribution of cropmark settlement evidence through 1984 (the last good year for cropmarks). The first reconnaissance in the valley to be done on a large scale was by J.K.S. St.Joseph, who concentrated on Roman military archaeology. Consequently his photos from the Cambridge University Collection only tend to include non-Roman sites when they are in the vicinity of Roman installations and roads. This obviously skews any distribution. The RCAHMS in contrast has been more even handed, but in working from areas of known cropmark productivity the record at the moment cannot be said to represent an even coverage; whether such a state can ever be achieved is another matter. What the current aerial record demonstrates is a well understood phenomenon: cropmarks appear in freely draining soils like those derived from sandstones, gravels and sand (Riley 1980, Wilson 1982). What we are not yet in a position to answer, because of the short history of aerial archaeology in Scotland, is whether this has any cultural significance. That is, we are not yet able to say that certain areas were favoured on the basis of aerial photographic evidence, because our evidence has not been collected for long enough or systematically enough.

As was mentioned, nearly all the photos are oblique views

which without rectified transcription are unsuitable sources for measurement or scale plans. Whether rectification is done by hand or machine the principles are the same. Besides being faster, computer plotting programs allow the photo transcription to be reproduced at any scale, thus facilitating the plotting of sites on to maps and enabling detailed study.

The system used consisted of a Sirius microcomputer, a Bausch and Lomb digitizing pad and a C.Itoh digital plotter. The aerial photographic transcription program was developed by John Haigh (see Haigh et al 1983) and was modified by Diana Worcester of the Glasgow University Computing Service to be compatible with the Sirius. The program requires a minimum of four control points, that is points which can be identified in both the photograph and on a map or surveyed plan. In practice these are usually the intersections or kinks in field boundaries, cross-road or building corners. The control points are entered from the map into the computer via the digitizing pad, then the same points are entered from the photo. Having established the relationship between the photo's perspective and the map, the computer can then plot any further photo points correctly to scale. For this study Tayside Regional Council kindly provided dyelines of the OS 1:10,000 map coverage.

The Haigh program makes several assumptions which limit the precision of the transcriptions and there are additional technical factors which introduce further limitations. A major operating assumption of the program is that the world is flat. The computer treats the surfaces represented by the photograph and map as planes, which means that features occurring on steep hills or precipitous slopes cannot be accommodated. When attempts

were made to plot sites on steep hillsides the plans were wildly distorted. Using more sophisticated equipment and software it is possible to overcome this, but given the available resources and the goals of this study this seemed an acceptable limitation. In practice this limitation applied mostly to extensive sites like field systems which survive as upstanding features in the upland areas. A second handicap for the study of upland sites is that they are usually poorly provisioned with control points. Together these two factors combined to prevent every attempt to transcribe upland sites, including the hillforts. A lack of sufficient control points can also be a problem in very large low-lying fields and occasionally it was impossible to plot sites in this situation. The slope problem was fortunately confined to the large sites on steeper hills and was rarely evident in the many sites located on gently rolling hills. When the topography did cause slight distortions this was corrected by eye. As a general rule the standard of photography was such that a reasonable plot could be obtained from the photos held in the NMR given the capacity of the program. But in addition to software limitations there were two further sources of imprecision, one instrumental and one human. The device actually used to digitize the points on the maps and photos was an electric pointer equipped with rather coarse cross-hairs. In some instances the thickness of the cross-hairs meant that one could expect to locate a given feature with no more precision than 2-3m at a scale of 1:1000. When other visual problems like trees obscuring vital control points and slightly out of focus images are taken into account the level of precision drops even further. This is not as crippling a problem as might be feared given the graphic capabilities of the computer

plotter. The computer plots the features by connecting dots which represent the points entered via the digitizer, so the plot consists of a series of straight lines between the dots (see fig. 3.20). Given the low graphic quality of the plotter, it seemed best to use the raw plot as the basis for a more detailed scale drawing.

It is at the stage of making the scale drawing that the information from various photographs taken in different seasons and under different conditions can be incorporated. It is also at this final interpretative stage that details too fine to be digitized can be added and that minor correction to computer generated inaccuracies can be made (see figure 3.19). Of course it is at this stage that human inaccuracies of an interpretive nature creep in. The most difficult to control is the tendency to over- or under-emphasize features or to shape the whole site to conform to how one thinks it should look. One aspect of this is line width: a narrow palisade trench, say 0.5m wide should be represented at 1:1000 by a line 0.0005 wide. This means that in some case the lines in the drawings are not to scale, that they appear thicker than they should. In some cases no doubt the rough edges have been made a little more crisp and more consistent than they possibly are. These are inevitable, unavoidable tendencies which do not undermine the usefulness of the final drawings, which should probably be regarded as sketches rather than surveyed plans. However the drawings, like those presented below, are certainly accurate enough for the analysis they undergo. In fact they are accurate enough for all but the most exacting purposes - like trying to decide where to position a section to minimize digging. Unfortunately the guide to mapping

archaeological evidence from air photographs by Riley at al (1985) appeared too late to be followed. In any case the conventions advocated in the guide require considerable cartographic and drawing resources.

Classifying APs

Every analysis or catalogue of aerial photographs introduces a classificatory scheme, a process which naturally incorporates a degree of interpretation. Therefore it is not surprising that much of the debate on interpretation has focused on classification of AP sites (e.g. Palmer 1984; Scottish Archaeological Review 1982, 1983). It is well appreciated that only a small minority of AP sites will ever be investigated archaeologically, that cropmark evidence can never be more than a partial representation of subsoil feature, and that the comparison of cropmark sites with upstanding sites will always be problematic. To take this last point first, it is apparent that as we move into the archaeology of the agriculturally more attractive areas we are going to encounter features not previously observed in the remoter upland areas where upstanding features survive. Recognizing the difficulty of confident identification and the incompleteness of the record has evoked two responses. The first has been to classify sites purely on descriptive terms (eg. Ralston and Shepherd 1983), while the more dangerous (and more rewarding) approach is to interpret aerial photographic features in the light of excavated sites (eg. Palmer 1983, Macinnes 1984). These tendencies are in practice not mutually exclusive and can be recognized in every classificatory

scheme. This is an implicit recognition of different levels of confidence in interpreting different classes of cropmarks. For instance, the problems associated with the interpretation of AP sites which are Roman military camps is of a different order from those associated with small circular enclosures. For the Roman site the key question may be: Is it Severan or Flavian? While for the circular enclosure it may well be: Is this a barrow or a house?

The classification scheme followed here is a modification of the descriptive scheme employed by the RCAHMS in the National Monument Record (NMR). In specific instances I have departed from their interpretations and I have *subdivided some of their* categories. One such classificatory difference concerns the large well preserved set of features I shall call 'complex enclosures', which consist of several interlinked and superimposed features which could not be separated out. These have been selected for more detailed discussion from the nebulous collection of sites described as 'enclosure's in the NMR. Features which are closely related in space presented a similar problem, and in these cases the classification employed was based in the first instance on the 'central' or 'principal' feature, while the peripheral features were noted separately. The labels in the NMR do not attempt to describe all this detail nor do they usually attempt to assess the contemporaneity of different features. Obviously there is a good chance that at least parts of a cropmark complex were related, so fragmentation is at odds with a 'non-site' or landscape approach. However in this case, where the first priority is to identify the Pictish component of the record, this seems an necessary sacrifice.

As will become apparent, some categories of monument merit more consideration than others and can sustain a greater degree of analysis. Aside from ring-ditches, the majority of sites are types of 'enclosures', and as a broad category the enclosures make this point about level of analysis very well. In subdividing enclosures into different categories there is a tendency to draw upon different criteria to define the groups. For instance, in this study enclosures are divided into five groups which include: 'forts', 'palisaded enclosures' and 'rectilinear enclosures'. In this example three different criteria have been employed to define these subdivisions of 'enclosures' : forts are identified on the basis of their similarities to upstanding sites, palisaded enclosures on building technique, and rectilinear on their layout regardless of whether they are ditched or palisaded. I make no apologies for this because what this classification in fact recognizes is varying sorts of inferences one can make about different kinds of sites. This should become clearer as we proceed.

In addition to enclosures which are subdivided into various groups, there are three other categories: unenclosed settlements, agricultural remains including field systems, and ritual sites. These categories have, needless to say, been subdivided and it should be emphasized frequently co-exist within a given set of cropmarks. The interrelationship of the elements of different categories has already been commented upon, but it seems worth stressing that certain features do not often appear in isolation. When features like ring-ditches do appear on their own they become extremely uninteresting. What is there to do other than measure and count them?

Before proceeding, a word or two about the plans which accompany the following discussion is needed. Excepting the excavation plans and a few special cases, all of the drawings have been produced from oblique photographs in the manner described above. In a few instances sites which could not be plotted using the computer with the available photographs were nonetheless thought important enough to be illustrated with sketch plans. These are marked as such. The plans consist essentially of the cropmarks and where the marks end abruptly (usually because they extend into the next field or into the woods) no attempt has been made to complete the features. Only the most basic of topographical features - cliff-edges, precipitous natural slopes, rivers and streams - have been included. No attempt has been made to indicate subtler aspects of topography such as contours, nor has there been any attempt to indicate areas of modern land use, like forestry or housing, which will never produce cropmarks. To add such cartographic detail was beyond the available means of this study. Therefore a complete understanding of the landscape setting of these sites requires the use of maps. Appendix I consists of portions of the 1:10000 maps onto which the AP sites have been plotted. To facilitate the location of the site plans on the map, all the computer generated sites are provided with a National Grid reference. This also allows interested readers to locate the actual photographs in the NMR. All plans are oriented to the north unless otherwise indicated.

The presentation of the plans is organized to complement the discussion of the classificatory scheme. Because it is often the case that more than one type of feature appears at the same

'site', it was not thought desirable to present all of the examples of a specific type of site together. For instance, a set of cropmarks might consist of an enclosure, a ring-ditch house, a souterrain and cultivation remains. Rather than dissect the sites into their constituent elements or reproduce this hypothetical site four times, a compromise was struck. All of the sites for which a drawing exists have been illustrated at 1:2500 or larger, but the drawings are organized to illustrate specific points or specific site types. Thus although most of the plans of, say, rectilinear enclosures are illustrated together - this shows their range of size and form as well as facilitating comparison - some of them, for instance those connected with cultivation remains, are used to illustrate other discussions, in this example on field systems. Aside from avoiding unnecessary repetition this practice allows us to see the clusters of features as they appear grouped in the archaeological record as far as possible. Finally, contained in these drawings is sufficient detail to comment upon at great length. I have resisted this temptation except where it has been necessary to draw attention to details to make a specific point. This leaves ample scope for readers to speculate at length, ponder in depth and indeed produce supplementary commentaries, if they are so moved.

Strathearn AP Classification

Forts

It is impossible to apply the same criteria to the analysis of cropmarks as one would to upstanding sites. For one thing

cropmarks may reveal features like palisades which are not normally evident on unexcavated sites and for another it is often the case with larger sites like hillforts that the whole plan is not revealed because they may stretch across more than one field or extend into woods. In some cases this has made it impossible to get a very precise estimate of the area. However the classification derived for the upstanding hillforts in the previous chapter still seems to provide a useful way to order the AP hillforts: the distinguishing characteristics of the site layout can generally be distinguished even if the plan is only partially revealed.

There are sixteen AP sites in the study area which fall into the fort category (see figures 3.23, 3.24 & 3.25), but in so saying we immediately come up against the problem of distinguishing between enclosures and forts. For our purposes forts are large enclosures (usually 0.5 ha or more) generally with more than one line of defences including at least one substantial ditch. In many cases the contemporaneity of the enclosing features cannot be determined so the multivallate quality is a bit arbitrary. This and the difficulty of measuring area makes it unreasonable to put much faith in any coefficient of elaboration and none has been calculated. Instead, the plans of the AP forts have been compared with the characteristic forms of the upstanding hillforts and they have been grouped according to the hillfort classification derived in the previous chapter with one addition. The large, simple class I forts which as we saw are generally located in remote areas seem to have a lowland counterpart, built on a smaller scale (0.75-1.0 ha) and located in relatively fertile areas of modern arable. These are labelled

class I+.

The class I AP forts (nos. 38, 39, see table 3.1) fit nicely into the north Ochil distribution and morphology, but the I+ sites require some rethinking. The characteristic aspect of the class I+ group (nos. 40, 41, 42, 43) is their siting: they tend to be found on slight natural rises of no particular prominence. Largely because of their simple plan (see fig 3.23) - generally a single broad ditch and a second narrow ditch or palisade(s) - they may be compared with upstanding examples from the Iron Age and are considered to be prehistoric.

There are at least four (possibly five) cliff- or scarp-edge forts of the class II type (see figure 3.24). Three (nos. 44, 45, 46) are fairly large being 0.5 ha or more and are double ditched structures. The smaller one (no. 47) and the possible one are both of the order of 0.25 ha and have only a single ditch. The siting of these varies: all back onto steep slopes or actual cliffs which are fluvial in origin, one overlooks the Earn but not all overlook water. Again following the tentative case put forward for the Iron Age date of the other class II forts these are considered to be prehistoric.

In many ways the most interesting AP sites resemble ploughed out class III forts (see fig. 3.25). These (nos. 48, 49, 50) are elaborate constructions with up to five ditches situated on locally prominent knolls. Unfortunately, because of modern day land use such as wooded parks, we have no complete plans but all three are of the order of one hectare and exhibit a fairly high degree of elaboration in the defences relative to the interior area. In plan, two are oval and the third could be as well, but equally may have made do with the natural strength afforded by a

bluff to create a D-shaped enclosure. A possible smaller fourth example is represented by cropmarks too faint to comment upon (no. 51). The sandy subsoil at two of these sites has produced very sharp cropmarks and provided some internal detail. The third site (no. 49) is now occupied by a modern house. At Broxy Kennels (no. 48) there is a suggestion of a souterrain immediately outside the eastern entrance, while at Dun Knock, Dunning (no. 50) there are traces not only of internal round and rectangular houses, but a suggestion of internal divisions. Obviously it is impossible to confirm the contemporaneity of these features.

The resemblance of the plans of these cropmark sites to the class III hillforts as well as their 'strategic' locations seems to point to a Pictish date. In addition to the typological arguments there are associated landscape features which support an early historic date for these sites. These will be reviewed in the next chapter.

It should be pointed out that no nuclear forts are represented in the AP record. This is not surprising given that one of the traits of nuclear forts is a craggy hilltop location. There are however two further sites which may well be Pictish, but because they do not conform to any of our established groups they will be considered in the next section under enclosures.

Enclosures

The term enclosure is used by the RCAHMS to describe features which circumscribe an area deemed too large to represent a house. Generally speaking they lack internal features, or at least anything which could represent interior buildings. When

they contain clear signs of buildings they are termed 'settlements'. Enclosures tend to be simple structures, typically represented by a single ditch or palisade trench; if they were more complex they would be classed as forts! Given the broadness of the definition it is hardly surprising that so many different kinds of features can be found labelled 'enclosure' in the NMR. It is also worth noting that many of the simple enclosures occur in areas not favourable to cropmark production or have been recorded in less than ideal conditions. Therefore we should be wary of assuming that because the descriptions of these sites are simple, the sites themselves were simple or insignificant.

It is from this perspective of suspicious ignorance that the enclosures have been subdivided. Three distinguishing criteria have been used: construction method, size and shape. It is far from clear that any of these has any chronological value, but it does help to order the data and may help to identify some functional similarities. For convenience's sake the enclosures have been subdivided into the following working groups: palisaded enclosures, ditched curvilinear enclosures, rectangular ditched enclosures and complex enclosures.

To deal with the last of these first, complex enclosures consist of sites where several enclosures are either interconnected or superimposed. They are difficult to describe verbally. They are also unusual in Strathearn, unlike Wessex (Palmer 1983, 1984). We will look at some of these in detail later. The remaining sites have been classified according to a hierarchical scheme: first in terms of superficial form - curvilinear (including round, oval and D-shaped) or rectilinear - and second by method of construction (i.e. palisaded or ditched).

This provides the working groups which may be further broken down by size (perhaps the single most important attribute) and other details.

Palisaded Enclosures

Palisades have been singled out for attention by AP interpreters (cf. Maxwell 1983) not so much because they represent an archaeologically well understood group, but as I believe, because they may be identified with relative confidence in the AP record. As they appear in Strathearn they do not in fact represent a very coherent group; although they assume a limited range of circular or oval plans, they vary enormously in size (see figures 3.26, 3.27 & 3.28). Bearing in mind the discussion on palisades in the previous chapter, they cannot be said to possess a precise chronology. It has already been pointed out that there are three examples of AP hillforts which have palisades in their defensive history. Only at Thorn (no. 45) where the spacing between the ditch and palisade is close enough to suggest that the palisade was an integral part of the rampart structure can we suppose that the two structures co-existed.

In an effort to differentiate between the twenty-three palisades in the valley which do not occur in association with a hillfort, the minimum enclosed areas of AP hillforts have been compared with the areas of the palisades (see fig. 3.29). Two observations may be made from this comparison. First, the area of the AP forts tends to be rather larger, although in terms of usable interior areas the largest palisades are obviously more spacious than the largest forts. If we are looking for

confirmation of this the RCAHMS has classed some of these large palisades as forts. The only one which shares much in common with forts (aside from size) is Drummondernock which has two distinct palisade circuits that look contemporary. Perhaps more important is the representation on the graph of small palisades, those 0.25 ha or less. Now it is not the absence of comparable small forts on the AP fort graph that is important, because there are smaller ditched enclosures (discussed below and omitted from the graph): rather it is the considerable presence of small palisades. Of these small palisades, eight are less than 0.125 ha (smaller than 12.5m in diameter) and can scarcely have contained more than a couple of houses. In some instances the juxtaposition with modern farms (eg. Lochlane) is so striking that one is tempted to interpret this as evidence of long term settlement location stability. If we knew when this settlement pattern was established we would be much closer to being able to date these sites.

Lacking this settlement history there is little to go on with respect to dating these structures other than subjective considerations. On balance the large round or oval palisades are more likely to be prehistoric than historic, simply because upon excavation more have proved to be early than late (Ritchie 1970). Clearly the small palisades represent a different social phenomenon and they require separate consideration. If they represent settlement, then they must be thought of as farmsteads since they can scarcely have contained more than a house or two, some outbuildings and a general purpose courtyard. The attraction of these sites is that they allow us to identify the precise locations of primary agricultural production. For the moment we

must recognize the possibility that some could be Pictish, if for no other reason than their correspondence in size to ringforts.

Curvilinear Ditched Enclosures

The graph representing the areas of all curvilinear ditched enclosures (fig. 3.30) closely resembles that of the palisaded enclosures in the predominance of small enclosures. Over half (18 of 35) are of the order of 0.125 ha (about 12.5m in diameter). Of the remainder only one example, Loanleven, is larger than 1 ha and may actually enclose as much as the largest hillfort, 3 ha. Lochleven is peculiar in its scale and exhibits few helpful details other than its slightly polygonal form, which suggests that it was gang built. It could date from any time since the Neolithic, but it is unlikely to concern us. Within the remaining moderate sized enclosures there are several examples, mentioned previously of special interest, but first let us consider the small group.

These sites are difficult to interpret because they tend to be isolated and to lack internal detail (see figures 3.31, 3.32, 3.33 & 3.34). They are basically round and fall at the small end of the ringfort size range. In some instances it is hard to know whether we are looking at a ringfort, or a very large house or even a large barrow. In Ireland the dry-stone cashel has a lowland cousin in the earthen rath: the difference is essentially determined by the available building materials. If this analogy can be extended to the Scottish dry-stone ringforts, then perhaps these small ditched enclosures are <u>their</u> ploughed-out cousins. Thus like the small palisades these ploughed-out relations are

potentially Pictish.

Several of the moderately sized curvilinear ditched enclosures would also fall rather happily into the Scottish (or Irish) ringfort range. A number are round and could easily have accommodated a farm and are located in good arable. Somewhat different in form and in size are the larger oval enclosures which also tend to have more substantial ditches. An obstacle to interpreting these sites is their general lack of internal detail and frequent isolation from other cropmark features.

Happily there are three exceptions, which enable us partially to overcome the obstacle. These three have internal details and associated landscape features as well as sharing the same basic D-shape with the short, straight side containing the entrance and an elongated curved back. Of these Forgandenny (no. 57, fig. 3.36) is the largest, at least 0.5 ha, and it contains at least two round houses. Tofthill (PT/12126-8) is unfortunately unplottable, but occupies about 0.25 ha and encloses a round house and what looks like a souterrain. Aberargie 2 (no. 60) is the smallest at about 0.1 ha but it too contains a house and may be related to a couple of unenclosed round houses and a pair of ditched trackways or droveways (see fig. 3.42) The Aberargie D-shaped enclosure is also overlain by strip cultivation. In themselves none of these details suggest a date for the ditched enclosures, but at least they confirm that some were settlements.

It was mentioned earlier that there are several moderately sized enclosures of particular interest to us, which are unusual and offer some scope for interpretation. Some of these border on being forts in terms of their size, but they do not closely fit any of the established fort categories and have not been so

classed. Perhaps most intriguing is Dunbarney Village (no. 56, fig. 3.35), which consists of a narrow ditched oval enclosure and an adjacent subrectangular enclosure. The enclosed area of the oval is about Ø.15 ha and within it are features suggestive of the presence of as many as three round houses and many other traces of unidentifiable structures. The subrectangular enclosure exhibits none of the internal features noted in the oval, and may well be empty. It is tempting to see the two enclosures as related, the one being the residential enclosure and the other being a corral.

The enclosure at Dalpatrick (no. 54, fig. 3.36) has features which seem more definitely post-Roman than any other ditched sites discussed so far. Here the incompletely revealed oval enclosure consists of a narrow ditch and external palisade containing possibly Ø.35 ha. These are evenly spaced and look to be contemporary or sequential. The interesting features are the everted parallel sided gateway and the possible timber hall within. Admittedly the evidence for rectangular buildings is not conclusive, but even if it were there would be the Balbridie factor to take into account (Reynolds 198Ø). None the less the overall impression reminds one of Doon Hill (Hope-Taylor 198Ø), although perhaps not so orderly.

The third site singled out for particular notice in this category is located within the Roman temporary camp at Grassy Walls. This is not technically in Strathearn, but it is included because the survey of AP material was extended across the Tay in order to take in the historically crucial Scone region. The enclosure at Grassy Walls (no. 55, fig. 3.37) is a rough circle of massive ditches (up to 1Øm wide in places) enclosing

approximately 0.5 ha. Access is via a remarkable entry way of parallel ditches extending some 100m. On the opposite side to the entry way (behind the main enclosure) are three large ring-ditches or small enclosures also constructed on a massive scale. There are several observations to note about these features. First is the proximity to Scone, one mile from the site of the Abbey. Second is the entry way, which has no real parallels in the valley, other than the banked entrance to Dundurn. The closest parallels are the so-called antennae of the Wessex Iron Age 'banjo' enclosures, which are generally regarded as devices for livestock management. *In this context we should recall H.C.* Bowen's suggestion that they would have also functioned to impress visitors - friendly or otherwise (1979:182). Lastly the cluster of small enclosures around back, if contemporary, would be unique in the valley and may represent an alternative solution to the problem resolved by the nuclear fort. Two of those seem to be linked to souterrains which would strengthen suggestions of a late prehistoric or Pictish date. These rear enclosures might be seen as providing a way of keeping different activity and residential zones physically separate from the principal enclosure and thereby enforcing social distinctions. Taken as a collection the temptation is to look for parallels beyond Wessex to Tara.

These three sites have been singled out for special consideration because they have features, especially the last two, which are tempting to think of as Pictish. In addition if the small circular enclosures represent ringforts, we are beginning to see the nature of Pictish settlement.

Rectangular Ditched Enclosures

Like the other classificatory categories this one includes a wide range of forms and sizes. The plans of these sites (see figures 3.38, 3.39 & 3.40) share the common use of something approximating to a right angle, but they otherwise range from what could almost be a roofed building (15 x 20m) to a vast 3.5 ha. square. The main motive for grouping these together is the notion that there exists a chronological horizon to rectangular architecture. But discovering when and why this occurred is less easy. The only obvious thing about the shift from round to rectangular is that it represents a fairly dramatic cultural change (Lynn 1978, Horn 1973).

Assuming that the Neolithic tradition of the rectangular timber house died out by the Bronze Age, then it would seem that until the arrival of the Romans the basic architectural forms in north Britain were round houses and unround fields. Clearly in the civilian zone of Roman Britain this was all changed by villas and towns; people came to live in boxes along with Gods, animals and soldiers. In thinking about this a distinction should be maintained between architecture for living and that for working; that is, buildings and architecture for ordering the landscape, like yards and field boundaries. We cannot assume that rectangular buildings and squarish enclosures were adopted simultaneously or for the same reasons throughout Britain, especially in an area remote from contact with non-military classical architecture. Although we should not expect that the process of making the world square followed the same path in northern Britain as it did in the south, we might expect a more

uniform development throughout the north. Certainly this expectation is behind traditional thinking on the matter, which has produced a remarkably rigid developmental sequence. In practice this rigidity leads to some confusing reasoning: Lesley Macinnes notes a concentration of smallish (Ø.125-Ø.25 ha) rectangular enclosures in East Lothian, and following the conventional opinion sees this as evidence of social and economic interaction between Rome and her allies (1984:183ff). The excavation evidence is inconclusive and since these enclosures still enclosed round houses, perhaps we should allow for an evolution of rectangular enclosures independent of Roman influence. Given the traditional shape of fields, rectangular enclosures are theoretically possible at any time in the prehistoric period.

One might have expected that in northern Britain the development of rectangular houses would be more precisely datable than rectangular enclosures, but it is not so. Hope-Taylor makes a persuasive case for regarding the earliest rectangular buildings at Yeavering, which were built of squared posts set in trenches with wattle infilling, as belonging to a tradition that was 'post-Roman but non-Germanic and pre-Germanic' (1977:212). He argues that the classical architectural idiom was adopted by the British and made their own before the Anglian invasion. Such a scheme does not seem so plausible for Scotland north of the Forth, where we may wish to see round houses persisting almost as long as they did in Ireland, that is until the tenth century (Lynn 1978). The earliest candidate is the putative rectangular building at Clatchard Craig which has been dated to the eighth century or later (Close-Brooks n.d.). A less well dated example

is known from Green Castle, Portknockie (Ralston 1987:19).Round buildings may in fact have predominated in rural areas until well after the need to build within the confines of a burghal toft forced their introduction in urban areas (see Spearman 1987 on the archaeological problems of identifying the origins of Scottish towns). The point is to note that we are still unable to say when the transition took place or why it happened.

This is therefore not the place to explore the undoubtedly important cultural aspects of the shift, but we are entitled to assume that the shift in world view engendered by the difference in perspective afforded by the hall or long-house as compared with the round house was dramatic (Glassie 1975, 1982). For the moment we can only attempt to document the different forms and to identify the locations where the relationship may be investigated archaeologically.

Plotting the areas enclosed by rectilinear features reveals the by now familiar pattern (fig. 3.41): the majority of sites cluster at the small end of the graph. Here two thirds of the sites are smaller than 0.25 ha and 12 of 29 are smaller than 0.125 ha. Looking at these data in conjunction with the plans (see figures 3.38, 3.39 & 3.40) the sites seem to fall into three groups: i) the very small which resemble interconnected small buildings; ii) moderately small ones which look more like yards or paddocks, which occasionally contain buildings; iii) very large ones which rarely have any internal features. With few exceptions none of these exhibit any serious defensive intent; the ditches are almost uniformly slight, bordering on being palisade slots. Because of this it was not thought worthwhile to distinguish between the palisaded and ditched types.

The small group includes two sorts of structures: simple enclosures which rarely have internal features, and enclosures with internal subdivisions, which resemble weird tennis courts. It is not impossible that some of the smallest were roofed buildings, but with one exception it is assumed it is assumed they were not. The exception is the putative timber hall within the ditched and palisaded enclosure at Dalpatrick (no. 54, fig. 3.36). The enclosure at Aberargie 1 (fig. 3.42) is also exceptional because it is one of the few rectilinear enclosures containing a round house and may fall into the group of 'Romano-British' farmsteads discussed by Macinnes (1984:183), but could of course be later or earlier. It is the only one for which there is any suggestion of a date. On occasion the 'tennis court' type are laid out so regularly as to suggest a late medieval or later cluster of farm buildings. Certainly they resemble crude versions of the typical nineteenth century improved Mains farm compound (Fenton and Wallace 1981), but at the moment they are without date. At Craigmill cottage (figure 3.38) a cluster of these rectangular structures is superimposed on a ring of pits which could represent the postholes of a round house. Here then would be an excellent place to examine the relationship between round and rectangular, while at the same time exposing the nature of these strange 'tennis courts'.

The moderately sized enclosures are equally obscure. Several are located in proximity to round houses or enclosed settlements, like Dunbarney village, but with two exceptions their interiors are featureless. One obvious interpretation would be to regard most of them as corrals or livestock pens. One of the exceptions, Gascon Hall (fig. 3.39), is almost certainly of later medieval

date. It contains the upstanding remains of a masonry wall which may be identified with the castle ruin noted in 1845 (NSA 10:337). The large scale of the ditches and the extremely precise layout of the Kirklands of Damside (3.39) site also is suggestive of a later medieval structure. These last two sites are the most defensive in layout and in the scale of their ditches, and are only matched in defensive appearance by the double square at South Mains, Innerpeffray I (fig. 3.40) Here, although only part of the site is revealed, we have a structure so regular as to suggest a Roman fortlet, but this possibility has been dismissed by Romanists (Gordon Maxwell pers. comm.). It remains then another prime location for investigating the round to square transition, since it apparently overlies the Class I+ fort.

The very large enclosures are perhaps the most enigmatic because of their total lack of internal detail. They are among the largest enclosures of any description in the valley: the pair at Upper Cairnie (fig. 3.40) are 1.25 ha and 3.5 ha. One can only suggest that they may represent enclosures of monastic granges or features of more recent date. These possibilities could be confirmed by a more intensive documentary search. Probably the only certainty is that they are not Roman military sites or they would have been recognized as such by now.

In sum: rectangular enclosures remain for the moment almost entirely obscure. Various tentative interpretations have been offered for the different forms, but most can only be regarded as suggestions. It is quite possible that some of the moderately sized and small enclosures, those suggestive of farmsteads, belong to the Pictish period. But the possibility is offered with

less conviction than the proposed identification of the ploughed out ringforts.

Complex Enclosures

The sites in this group have been brought together by the unpredictable geological and climatic factors which have led to the production of extensive finely detailed cropmarks, resulting in features which are too complicated to be easily accommodated in other categories. The distinguishing features of this group however relate not to the degree or nature of their complexity, but to their proposed function. They all seem to be farmsteads, in so far as they resemble features which elsewhere in Britain have been interpreted as indicative of farming activity (Riley 1980, Palmer 1984). These aerial surveys by Riley and Palmer and the large scale excavations in the Fens (Pryor 1984) and the upper Thames (eg. Parrington 1978, Miles 1983) which have been investigated in conjunction with aerial survey are beginning to suggest that extensive sets of agriculture-related features are typical in areas of reasonable agricultural potential. Therefore it can be argued that these complex enclosures are exceptional only in their geological setting which happens to be conducive to cropmark production and that such complexes may be typical of the agricultural archaeology of fertile regions. It seems likely, given that Strathearn is a far poorer place for the production of cropmarks than say Wessex or the Thames Valley, that such complexes of agricultural features are more widespread than is indicated in the AP record. We could even suggest that these complexes more accurately represent the typical farmstead setting

of intermingled houses, enclosures, trackways and fields, than do the far more numerous isolated ring-ditches or enclosures. On the other hand it may be that these sites are genuinely unusual. In any case they require special attention.

Broadly speaking there are two sorts of complex represented here. The first consists of collections of features closely scattered across the landscape like those at Aberargie (fig. 3.42). Here there is only the spatial proximity to suggest contemporaneity. These have been rather arbitrarily selected out from larger areas of cropmark productivity like Dalpatrick and Huntingtower (see Appendix I). The other group is more concentrated and seems to represent farmsteads in the midst of their productive infrastructure of yards, fields and pathways. Again this group has been somewhat arbitrarily separated out from the broader category of cultivation remains which apparently lack a residential focus as they are recorded in the aerial photographs.

What we see in all of these, but especially in the second group, are linked enclosures, structures which have been added to or altered over time (fig. 3.43). These may be small enough as at Drumford to suggest that they represent at least partially roofed buildings. They may also be quite large with ditches on a substantial scale, as at Balgonie (fig. 3.21) where the enclosed areas amount to more than Ø.5 ha and the ditches are up to 4m wide. One thing that seems clear from their layout is that the enclosing ditches functioned as paddocks at least part of the time. This can only be demonstrated in the more extensive sets of cropmarks as at Balgonie and Middle Strathy (fig. 3.43) where the enclosures tie into the surrounding field systems and are linked

to ditched trackways which run through the fields. In these examples it is possible to begin to identify functional elements of the landscape - arable, pasture, paddocks and residences. Such extensive sets of cropmarks are rare, so it is too soon to attempt much detailed generalization. It is however worth noting that where the residential areas can be identified with certainty (from the appearance of houses) they represent very small communities, several households at most. Whether these basic interpretations can be said to hold true for the more diffuse sets of scattered features like those at Maxerfield and Mailing Knowe/Westburn (fig. 3.42), is very much an open question. At the moment the cropmarks of this type are not well enough defined to discover any definite interconnections and no systemic relationship among the various loosely connected features can be demonstrated.

As ever, the dating of either type of complex enlosure remains a problem, but at a few sites there are indications of at least relative dates. The enclosure at Gilles Burn appears to overlie the ditch of the third century legionary fortress at Carpow (fig 3.43); at least some of the farmstead ditches seem to be cut through the silt of the Roman ditch. If this relationship is in fact correct then it would be possible to place the round houses within a rectangular enclosure in a post-Roman context, probably post-Roman by several centuries if one allows time for the Roman fort ditches to silt up. Another interesting relationship may be observed at Luncarty 1 (fig. 3.43) where the large sub-rectangular enclosures seem to be later than the small circular one, to judge by the differential feature fills. Here of course the absolute dating implications are less clear, but it is

interesting again for its superimposed sequence of round and rectangular enclosures. Of greater interest from the perspective of cultivation history are the features surrounding the enclosures at Balgonie (3.21). Here not only are the central enclosures linked to the track ways and surrounding fields, but the occupation, or at least presence, of the farmstead seems to fall between two separate phases of strip cultivation: one which respects the enclosures and one that overlies them. We will return to this site in the discussion on aerial photographic evidence for cultivation and field systems.

The potential importance of these complex enclosures is far greater than their numbers might suggest, given the conditions needed to produce good cropmarks in Scotland. Depending on how one wishes to count 'sites' they represent 5% or less of the total aerial photographic settlement record. However they are the only sites which provide clear evidence of the relationship between the settlements and their immediate surroundings. These sites do not cluster and this fact, when taken with the other enclosure distribution evidence, suggests a rural landscape of scattered farms separated from one another by arable, pastures and woods and linked by a network of trackways and roads. It is worth mentioning in passing that aerial photographs record the existence of perhaps a dozen examples of these trackways as short stretches of parallel linear ditches or pit alignments. Obviously fences and hedges would leave no trace. Perhaps the most important thing to note about these farmsteads is that they suggest the sort of contexts into which the more isolated settlement features (represented by fainter cropmarks) should be placed. They do not provide any straightforward answers to the

questions about the organization of agriculture in medieval Strathearn, but they do tell us where to begin looking.

Unenclosed Settlement and Timber Round Houses

The ring-ditch and ring-groove house in all its various forms is the single most common feature to appear in the aerial photographic record of Strathearn, as it is throughout northeast Scotland (Maxwell 1983:31). Because such buildings are the dominant form of domestic architecture for most of Scottish prehistory and arguably through much of the early historic era, they had been justifiably the subject of intensive research even before they began to swell the aerial photographic archives. The discussion which follows relies heavily on the findings based upon the architectural analysis of excavation evidence, current appraisals of which appear in Later Prehistoric Settlement in South-East Scotland (Harding 1982). The typology of round houses based upon excavation and field evidence is however not entirely appropriate for ordering the more ethereal aerial photographic evidence. For the aerial photographic material we must be content with more descriptive treatments such as that developed by Gordon Maxwell (1983:33-4), which do not impose any chronological scheme nor imply any direct correspondence between cropmark features and specific types of field remains. Maxwell's scheme provides a useful guide to the range of forms, but offers no answers to questions of date. It may however develop chronological and more specific architectural attributes as research, particularly excavation, proceeds. The guide to possible house forms has been built up from cropmark features which combine ring-ditches,

narrow trenches and circular or crescentic dark areas with interior rings of post-holes or pairs of post-holes in a door position. The post-holes help to distinguish the houses from barrows. Most of these have been observed in Strathearn, but it is rare that the cropmarks are both sufficiently strong and clear that post-holes may be seen.

Excluding those houses which, in exceptional cases, are visible within enclosures and which therefore have been presented above, there are at least 82 cropmarks of round timber houses at 34 different sites (see figures 3.44 & 3.45). There are no doubt more in the existing record since the dubious examples have been excluded as have those which for reasons of shape, size or internal detail, seem to represent barrows and not houses. The houses, generally labelled as ring-ditches in the NMR, seem to occur in three types of settings: in isolation, in clusters of ring-ditches, and in association with (but not within) other types of seemingly contemporary features, like enclosures. To avoid confusion all the different types of houses as described by Maxwell will be termed ring-ditch in the following discussion.

There are only five instances of ring-ditches apparently on their own, one of which is not completely alone as it is equipped with a souterrain. These houses like all ring-ditches range in size from a diameter of about 9m to 12m or more. Generally features over 12m in diameter have been grouped with small ditched enclosures. The division is of course an arbitrary convenience. In two instances the ring-ditches seem genuinely isolated, in so far as rather slight traces of possibly later agricultural activity show as cropmarks but there are no potentially contemporary landscape features. In these it must be

presumed that fences and associated structures were too lightly constructed to appear as cropmarks.

Ring-ditches are found in association with other ring-ditches at eleven locations and include half the known population. Aside from six pairs of ring-ditches, there are only five larger groups: two groups of six, and one example each of three, five and nine ring-ditches. For the sake of clarity, double ring-ditches, which could be either contemporary (i.e. houses with figure of eight plans) or sequential, are treated as separate structures. There are of course signs that cellular designs made up of two or more linked circular structures were favoured in Pictland as the excavations at Carlungie, Angus (Wainwright 1963) and Buckquoy, Orkney (Ritchie 1977) suggest. Such buildings cannot be identified with confidence on the basis of aerial photographic evidence alone, but this does raise the question of whether unenclosed settlements were any more than a series of houses occupied sequentially. When the clusters of ring-ditches found in association with other features are included in the distribution of unenclosed settlements the Strathearn pattern begins to resemble that of the neighbouring areas (Macinnes 1982). In any event when these clusters of ring-ditches have been excavated in eastern Scotland it has not been possible to determine with any certainty whether the houses were occupied sequentially or simultaneously. Excavations conducted in Angus and Kincardine suggest that sites represented by a series of ring-ditch houses strung out along a slight ridge date to the Late Bronze Age or Early Iron Age (Kendrick 1982, Watkins 1980a) and are assumed to have been villages. The dating of isolated or paired ring-ditches is less clear.

There are 35 ring-ditches associated with other types of features which might be contemporary and some of these, despite the occasional presence of enclosures, may prove to be 'unenclosed settlements'. To consider that paradox in more detail, the associations have been broken down into the type of associated feature. The presence of classic souterrain cropmarks with three pairs of ring-ditches (e.g. fig. 3.46), but with only one of the larger groups, supports the notion that there is a chronological difference between the large unenclosed 'villages' and pairs. It is possible that the higher frequency of souterrains suggests that smaller settlements are likely to be later in date. In five cases involving from one to four ring-ditches the association is with rectangular enclosures. There are nine associations between curvilinear ditched enclosures and from one to three ring-ditches. In two cases the ring-ditch is associated with a monument of a ritual nature: a stone circle (at Bel hie, fig. 3.53) and a Meldon Bridge type of pit-defined enclosure (at Leadketty, fig. 3.55). As can be seen from the illustrations of other cases it is impossible to be certain in any given instance whether the ring-ditches and the features are contemporary. If the enclosures and the ring-ditches do form a single period settlement, then there are two alternative explanations for the building arrangement: the enclosures are corrals and the people lived outside in an unenclosed settlement, or alternatively the enclosure was residential but only part of the community lived there. The rest occupied the nearby ring-ditches. This second alternative assumes that house cropmarks from within the enclosure are invisible. In the first instance we would be dealing with an unenclosed settlement equipped with a

corral. In the second case of the partially enclosed settlement it may be that the enclosure is to enforce social distinctions. Furthermore it might suggest that similar surrounding residences are to be expected in the vicinity of hillforts. Unfortunately there is no way to choose one alternative over the other.

Thus while it is not possible to point with any certainty to ring-ditches or unenclosed settlements which are of Pictish date they may lurk within this collection of sites. The most likely Pictish sites would seem to be those which resemble the small farmstead consisting of no more than two or three ring-ditches and which are equipped with a souterrain and perhaps a corral.

Souterrains

In Section II we examined the chronology and morphology of souterrains in Southern Pictland; here we have the opportunity to look in more detail at the specific characteristics of Strathearn souterrains (fig. 3.46). In the past decade, through the aerial photographic work of the RCAHMS, it has become clear that souterrains are a common feature of the grain producing areas of the northeast. Strathearn is exceptional only in the degree to which aerial photography has contributed to our knowledge of souterrain presence in the valley. Before aerial archaeology began there were only three recorded as holes in the ground (Barclay 1980); flying has added perhaps as many as sixteen more.

The range of identified forms can be matched among the examples surveyed by Wainwright (1963), but what is of more interest is the relationship of the souterrain to surrounding structures. With Watkins' excavation of the Newmill site and his

reinterpretation of earlier excavations, it has become possible to suggest that souterrains were commonly linked to timber round houses (see Chapter 6). This means that the isolated souterrains, of which there are three examples in the valley, probably mark the sites of settlements where the associated structures have either been ploughed away or were too slight to have produced cropmarks. Also in Strathearn there are another four examples which are part of a larger complex of features, but which do not appear in the aerial photographs as being directly linked to a building. In these cases we can postulate that there was an associated house or that the souterrain was a separate freestanding structure within a settlement as at Dallaides. Six souterrains actually conform to the ideal in that they seem to have been entered directly from a timber building. The two remaining examples are of particular interest because they do not conform to our expectations derived from Angus souterrains. Their closest association is not with a building but with either an enclosing palisade or a hillfort rampart. The palisade case (Newton of Condie, fig. 3.46) provides further evidence, if any is needed, of the late date of some palisades; it is possible that soil conditions obscure any trace of the building within the palisade. At Broxy Kennels (fig. 3.25) the unusual position of the souterrain raises the question of whether the features are contemporary. The position is reminiscent of the souterrains found in association with hillforts in the Borders; but as Welfare (1984) has pointed out, these structures are rather different from the Angus type, being more akin to the Irish refuges than to storehouses. As was said earlier the problems of dating the demise of the souterrain are such that they must at

the moment be seen to span the later prehistoric and early historic periods. Moreover the variety of souterrain form which is now emerging in the aerial record (especially in Angus) is making it increasingly clear just how inadequate the excavated data base is (Maxwell 1987). The variety of recorded forms in itself is indicative of a long history.

Field Systems

The term field system is used here to describe two different sorts of cultivation remains which appear in the aerial archaeological record: the rectilinear division of arable into separate plots by ditches or banks and the division of arable into strips. Both sorts of field seem to be under-represented in the aerial photographic record. Evidence of strip fields is probably more widespread than the aerial photographic record suggests in so far as it seems to be recorded only when in association with other features. Strip cultivation does not seem to be valued for its own sake. Presumably strip fields lacking nearby settlement evidence do exist, but without the more 'interesting' associated settlement features to catch the eye of the aerial archaeologist they go unnoticed. In addition to the evidence for both types of field system that is recorded on aerial photographs, a vast body of evidence survives as upstanding features in very old pastures and at higher elevations in rough grazing areas. None of this in the Strathearn area has been systematically recorded. In terms of available evidence we are therefore in a more impoverished position than is usual, which means that we are in even less of a position to

generalize. We can at least make some observations.

The principle governing the layout of the rectilinear fields, in those cases where sufficient is revealed to make any judgement, seems to be similar to field systems observed elsewhere in Britain (Fowler 1981, Riley 1980, Palmer 1984). The fields appear to have been constructed by processes of addition and subdivision, carried out within parameters and orientations supplied by one or more primary boundaries (figures 3.47 & 3.48). Indeed it is the primary or principal boundaries which are most clearly represented in the aerial photographic record. In Strathearn there are only a few instances where this has resulted in a full blown system of 'Celtic fields', but this may simply reflect the smallness of the sample and the general conditions for cropmark production. On the other hand it may be that such systems were always rare in northern Britain. One argument to support such a position is that the known systems, like that at Strageath, are not very extensive and the size of the individual fields is tiny (0.05 ha and less). It may be that what look like 'field' systems are not fields in the generally accepted sense of the term, but in fact gardens (i.e. areas of intensive cultivation). Conceivably they could also represent systems of paddocks, or just possibly the tofts of a medieval village (South Mains, Innerpeffray 2 (fig. 3.47) and Luncarty (fig. 3.43) are the most likely in this respect). What does seem clear is that cultivation remains are found in association with other features already discussed: enclosures (complex and simple), ring-ditch houses or barrows. With a few exceptions, as at Kinkell bridge (fig. 3.47), it is not possible to say whether or not the associated features are contemporary. There it is clear from the

overlap that several phases of use are represented. Perhaps the most complete landscape of this type is at Middle Strathy, where the complex enclosure is linked via ditches and trackways to what looks like the less substantial field boundaries of a rectilinear system.

Strip fields in some ways are more exciting, if only because it is easier to judge the contemporaneity of associated features. The most spectacular case of this is the already mentioned complex enclosure at Balgonie (fig. 3.20 inset and 3.21), which is surrounded by large expanses of cropmarks of cultivation strips. It is just possible to suggest that two different sorts of rig are represented here. *One is a broad rig which respects* the enclosures and follows the boundary alignments and therefore may be contemporary with the farmstead and fields and the other is a narrow gauged rig which does not. The narrow rig seems to overlie the southern portion of the enclosure and is likely to be considerably later. Balgonie looks as if it was standing, became abandoned and finally completely ruinous during the period when strip cultivation was practiced. The dating implications of this sequence of farming and occupation are not clear. There is a good chance that these events span the medieval period, since there was a farm at the site in the later middle ages (see Abernethy in Chapter 14). It is impossible to be more precise, but some of the Balgonie cropmarks may relate to early medieval activities.

Similar relationships between strip fields and settlement features can be observed at other sites. For instance, it is possible to find examples where the strips overlie ring-ditches (Inverdunning House and Gallows Knowe, fig. 3.49) and ones where the strip fields could be contemporary with ring-ditches and

souterrains (Easter Clunie, fig. 3.47 and Newton of Condie, fig. 3.46). The coincidence of strip fields with round-houses is not too startling, since we do not know when the long house replaced the round-house. The possibility that round-houses with souterrains are associated with strip fields however requires some serious rethinking of the conventional dating of both run rig and souterrains. It suggests that run rig starts earlier or that souterrains may persist later, or both.

Trackways must also come under consideration here, because as was discussed above they are an important component in the technology of a mixed arable-pastoral economy. Aside from their presence within the larger field systems already mentioned they are not very common in Strathearn. The most striking examples are found at Haugh of Aberuthven (fig. 3.47) and Carpow-Gilles Burn (fig. 3.48), both of which exhibit the characteristic funnel shaped terminus. Aside from instances already cited at Grassy Walls none of the trackways divorced from a field system connects with an enclosure as one might have expected. None of the half dozen or so pit alignments (which have not been plotted) have a close relationship with recognizable settlements, but should perhaps be regarded as functioning in part as trackways. Similarly the various linear features (which have only been plotted when appearing near settlements) are to be seen in the context of tracks, but with the exception of the aforementioned examples do not link to settlement sites.

Ritual Sites

In the course of this survey a significant number of sites were encountered which may conveniently be described as ritual.

It seems important to examine both those sites which may have originated in the Pictish period and those which clearly did not, in order to gain a better understanding of the early historic landscape. The prehistoric sites are important because it is becoming increasingly clear that prominent sites like henge monuments and barrows remained special to later peoples who have also used them for their own sacred activities. These already ancient monuments contributed significantly to the spiritual landscape of Pictish Strathearn. In the Strathearn area the most unambiguous evidence of this is the thirteen inhumation graves found within the North Mains henge which were oriented east-west (fig. 3.52). These are apparently Christian; one burial produced a radiocarbon date of 760±60 ad (GU-1382) (Barclay 1983:145-50). We will return to this theme in the following section; here we will simply present the evidence of aerial photography. Annoyingly it is often possible to identify prehistoric ritual sites with more confidence and more chronological precision than can be achieved with settlement sites simply because of their distinctive forms. In the following discussion the cropmarks are classified using the conventional terminology used to describe prehistoric monuments. With the later ritual sites there are added difficulties, which will become clear.

Cemeteries

Generally speaking ring-ditches may either represent houses or barrows. When an exceptionally clear cropmark shows an internal ring of post holes or door posts it is possible to be fairly confident that it represents a house. Such clarity of

detail is rare and one is frequently forced to decide on the basis of ambiguous details whether the ring-ditch was built for the living or the dead. Traits indicative of barrows include: lack of an entry, central 'grave-shaped' feature, small size, location with respect to other ring-ditches or features. Because these criteria are not ultimately conclusive, ring-ditches have been designated as ritual with caution, so as to avoid generating spurious 'ritual landscapes'. There are after all several areas in the valley which appear to have had sacred associations for centuries and accordingly have a high density of ritual features. Fortevi0t is the best known example. This cautious policy has no doubt caused some barrows to have been missed, but then the interpretation of ring-ditches is recognized as being difficult as the excavation of the Waulkmill ring-ditch shows. Here the ring-ditches were located among a variety of settlement features like fields and enclosures (see Kinkell Bridge, fig. 3.47) and, although they were rather small (6m diameter), they might easily be interpreted as houses. On excavation they proved to be cremation barrows (DES 1979, 44:259 Barclay 1983:243-7).

There are several instances of ring-ditches which, because of their location and morphology, seem to represent quarry scoops for burial mounds, some of which are good candidates for Pictish cemeteries (fig. 3.50 & 3.44). The Dornock Rings are a set of four very small ring-ditches and an average sized one, which lie within the Roman temporary camp. A portion of the larger circular feature appears to cut through the ditch fill. This location recalls the Pictish burials on and near the ramparts of the legionary fortress at Inchtuthill (Abercromby et al 1902:197-202). In the Carse of Lennoch are a group of features which

include two ring-ditches with internal pits near to rows of east-west oriented 'hyphen-shaped' pits which could well be a long cist cemetery containing as many as a dozen graves. The suggested relationship between long-cist burial and barrows at the Carse of Lennoch recalls the Forteviot 'palace complex' where Alcock (1982) and Macinnes identified a possible long cist cemetery with surrounding barrows, both round and square (fig. 3.51). There are of course several other likely Pictish barrows among the features at Forteviot. No other long cist cemeteries have been identified in the aerial record, but they have been reported at Perth (Henshall 1956) and Clatchard Craig (Close-Brooks,n.d.). Nor are there many examples of the classic Pictish burial, the square barrow, which have now been recorded in many parts of Angus and Fife. In Strathearn a group of five has been reported at Aberuthven (Close-Brooks 1984:110, Whimster 1980:415) and a possible example noted at Peterhead, Gleneagles near the Blackford Pictish stone (fig. 3.27). This last site is discussed further in Chapters 12 and 14.

Ritual Enclosures

In addition to the henge and hengiform enclosures among the RCAHMS coverage of Strathearn, there are several types of ritual enclosure represented by only a single example (fig. 3.53). Perhaps the most interesting in terms of its historic significance is the set of features at Blairhall which includes a classic example of a cursus accompanied by an extensive barrow cemetery. We will return to this occurrence in the immediate neighbourhood of Scone. The most exciting demonstration of the

value of aerial photography for the individual site is the discovery of features around the standing stone at Belhie. It includes a broad circular ditch which just clips the standing stone near the inner edge of the ditch and encloses a series of vague pits which are spaced along its interior edge. It looks very much like a henge and a robbed stone circle. The OS record card referring to the standing stone reports that according to the Old Name Book (ONB 1863, 11) it is supposed to be the remains of a 'Druidical Temple'. Interpreting the accompanying ring-ditch as a barrow would seem appropriate. Another interesting discovery was enclosure no. 2 at Leadketty, a circular interrupted ditched enclosure which is apparently a 'causeway camp'. This seems a fair identification bearing in mind that it is always difficult to know with certainty whether the gaps in a cropmark feature are real. Its proximity to the pit-defined enclosure of the Meldon Bridge type adds weight to the ritual identification.

Henges are not rare in Strathearn, for certainly half a dozen, and perhaps as many as ten, are known from aerial photographs (figures 3.53 & 3.54). Some of these are classic in form - very broad ditched circular enclosures with opposed entrances - such as those at Forteviot, Coldrochie and North Mains, Strathallan. Others, probably indeed the majority, are circular enclosures of one sort or another which have unusual characteristics. It is oddness which attracts attention, but it is difficult to define. Aside from opposed entrances (not found at all henges) and broad ditches, there are few features which distinguish henges from other types of enclosures. It is none the less possible to identify likely henges on the basis of subjective criteria. These possible henges include tiny examples

like Oakbank, which, were it not for the two opposed gaps, would simply be another ring-ditch/barrow. Slightly larger sites, like Newton with its 4m wide ditch only partially exposed, or Kinnon Park (fig. 3.42) where the two entrances are not quite opposed, might be taken simply for other enclosures. However, because they occur on subsoils particularly conducive to cropmark production, we can be more confident that the significant details have been revealed. Similarly, there is nothing absolutely conclusive about the putative class I henge at Huntingtower with its massive 45m diameter ditch and single entry nor are there *any close* parallels for the truly unusual pair of enclosures at North Blackruthven; but they do seem to be henges of some sort. These last two sites form part of a remarkable series of sites which appear on the well drained fields around Huntingtower Castle (fig. 3.34 and NOØ2SE/NOØ2NE in Appendix I). This complex of features provides a useful reminder that these sites do not sit in isolation but are part of a broader landscape, which seems to have been used for sacred building for generations. Knowing that some areas possess this sacred quality forces us to look around at the unusual features found associated with the ritual monuments. So, for instance, the huge enclosure at Loanleven, with its straight sectioned ditch, perhaps should be drawn into the Huntingtower complex of ceremonial sites.

The other huge enclosures which form the foci of ritual complexes are the pit-defined enclosures of which Forteviot (fig. 3.56) is the best known (St. Joseph 1978). Its Neolithic date is supported by the excavation of similar examples at Meldon Bridge, near Peebles and in Angus at the Lulan Water enclosure (DES 1980: 38, Maxwell 1983:29). A less well recorded second

example in Strathearn occurs at Leadketty (fig. 3.55) where it is associated with several ring-ditches which may be barrows. It seems to be a less elaborate example of a major ritual monument, acting as a magnet for features of later date, like the pit-defined enclosure at Forteviot and the cursus at Blairhall (fig. 3.55).

These vast ritual complexes, which encompass several hectares and incorporate so many monuments, are as difficult to understand as they are spectacular. The difficulty comes not from the individual components (although at both places many features remain obscure) but in understanding the nature of the attraction of these sites, and in evaluating their continuing significance in the historic period. Clearly until these circular enclosures and mounds were ploughed flat they remained impressive structures, suitable places for meetings, ceremonies and burials. It remains to explain how these ruinous monuments managed to transmit their sacred qualities and how these qualities were maintained (or repeatedly revived) within the preliterate tradition. At Forteviot this connection certainly continued down to the ninth century AD (see Skene 1857, Alcock 1982). Its Pictish phase seems to include several square barrows and what on analogy with Yeavering could be string graves (Hope-Taylor 1977:250ff) or simple long-cists. The other features including the rectangular ditched enclosure and the peculiar hooked ditch at the opposite end of the modern village from the church have been described as a 'palace complex', but are for the moment without close analogies.

At Blairhall the historical connection is less direct; kings do not seem to have lived here. Yet with regard to the density of

ritual features it is Forteviot's closest rival in the region and as a cemetery its row of barrows was perhaps more impressive than Forteviot's scattered monuments. The closely packed row also has parallels among other Pictish cemeteries (Close-Brooks 1982), so while strongly resembling a group of Wessex barrows they may even be Pictish. Like Forteviot, Blairhall has a number of enclosures which, though hard to interpret, could be residential compounds. Within the immediate neighborhood (less than 1 km distant) are the Grassy Walls enclosures (figures 3.37 & 3.43) with their extensive entrance avenue and equidistant lies the enigmatic Scone.

It is apparent from the aerial evidence that Scone and Forteviot were not unique in having dense concentrations of prehistoric ritual monuments. This requires explanation and suggests that whatever interpretation we offer for Scone and Forteviot it must also explain these others. We will return to this problem in Section IV.

Summary

. The proceding consideration of the aerial photographic evidence for settlement in Strathearn has necessarily been fragmentary; but it is nevertheless worth shaping some of the points made above into general observations. It hardly needs repeating that any judgments we make about AP sites are tentative owing to the nature of the evidence. None the less, if any use is to be made of this material, some interpretation must be offered. At this point I will restrict this to identifying those types of features which we have reason to believe may be sites of Pictish

settlement.

Before identifying the specific site types it is worth making one rather more general observation about enclosures. As was noted we have no real reason for excluding a priori any type of enclosure either on construction technique (i.e. ditched or palisaded) or form (i.e. curvilinear or rectilinear). However, not all can be post-Roman, some must be prehistoric. At various points suggestions have been advanced regarding the likelihood of a particular enclosure form being Pictish or not. For instance, certain forts (class I+) were suggested as Iron Age constructions, and certain of the rectilinear ditched enclosures were suggested as later medieval in date. Also at several points attention has been drawn to the predominance of small enclosures; this holds true for every subdivision of enclosures (palisaded, ditched and rectilinear) and for enclosures as a whole as the graphs make clear. What are we to make of this propensity to build small and enclosed?

I have already proposed an analogy between the small enclosures and the compact enclosed farmsteads of early medieval Ireland known variously as raths, cashels and ring-forts. This analogy is based on formal similarity, and possible contemporaneity, and presupposes that similar social forces were at work. While there can be little doubt that the overwhelming majority of these in Ireland are of early medieval date, no such certainty exists for Scottish examples - too few have been excavated and the settlement history is too complex to permit such assertions. Nevertheless there was a pronounced tendency towards settlement enclosure in Dal Riada during our period. This tendency is manifest in the sites commonly referred to as duns.

While I have no intention of entering into a detailed discussion concerning the significance of these sites, it must be said that the most intensive study of these sites concluded that, like the ring-fort, the dun is largely a phenomenon of the early middle ages (Nieke 1984). Or, rather, most duns were occupied in the mid-first millennium AD, however much earlier they were built (Alcock & Alcock n.d.). It should be added that Nieke saw no close architectural relationship between duns and ring-forts, so presumably they are the result of similar social forces. When searching for the settlements of the Picts we should bear in mind that among their neighbours there was a pronounced tendency to provide the household with an enclosure. It therefore seems not unreasonable to suggest that a large percentage of the smaller enclosures, suitable for a household, represent Pictish farmsteads. Having made the case for this problematic identification clearer, we can turn to the general observations to be made about the aerial photographic record and Pictish settlement.

We may summarize the finding of this stage of the study briefly. The types of AP sites likely to be Pictish include:

a) forts of class III type,

b) small enclosures,

c) small unenclosed settlements with souterrains.

There are four examples of the class III fort showing as cropmarks(fig. 3.25) of which Dun Knock, Dunning is the prime example. In addition to the simple type of small enclosure like that exemplified by Lochlane (fig. 3.26) we must also remember to include those more complex enclosed farmsteads like that at Carpow-Gilles Burn (fig. 3.43) which is certainly post-Roman, and

Balgonie (fig. 3.21) which is very likely post-Roman. Lastly, there are the apparently unenclosed ring-ditch houses occurring singly or in small groups which are accompanied by souterrains. On the basis of the souterrains these probably date from the late Iron Age into the Christian era.

Although considerable interpretation is embodied in the classification which underlies these general observations, it is not enough. If this material is to be made historically meaningful then it must be arrayed alongside our historical knowledge. This is the subject of Section IV.

Table 3.1 The Hillforts of Strathearn. Symbols and Codes: Area:t = Total Area (A_t), Area:i = Interior Area (A_i), At/Ai = Coefficient of Elaboration (A_t/A_i), Alt = Altitude in Meters OD. Period: IA = Iron Age, DA = Dark Age, MED = Medieval (post-12th Century), DA = proven Dark Age occupation, ?DA = probable Dark Age occupation, ??DA = possible Dark Age occupation. Classification is explained in Chapter 9, a stroke (e.g. I/V) indicates sequential occupation and reuse.

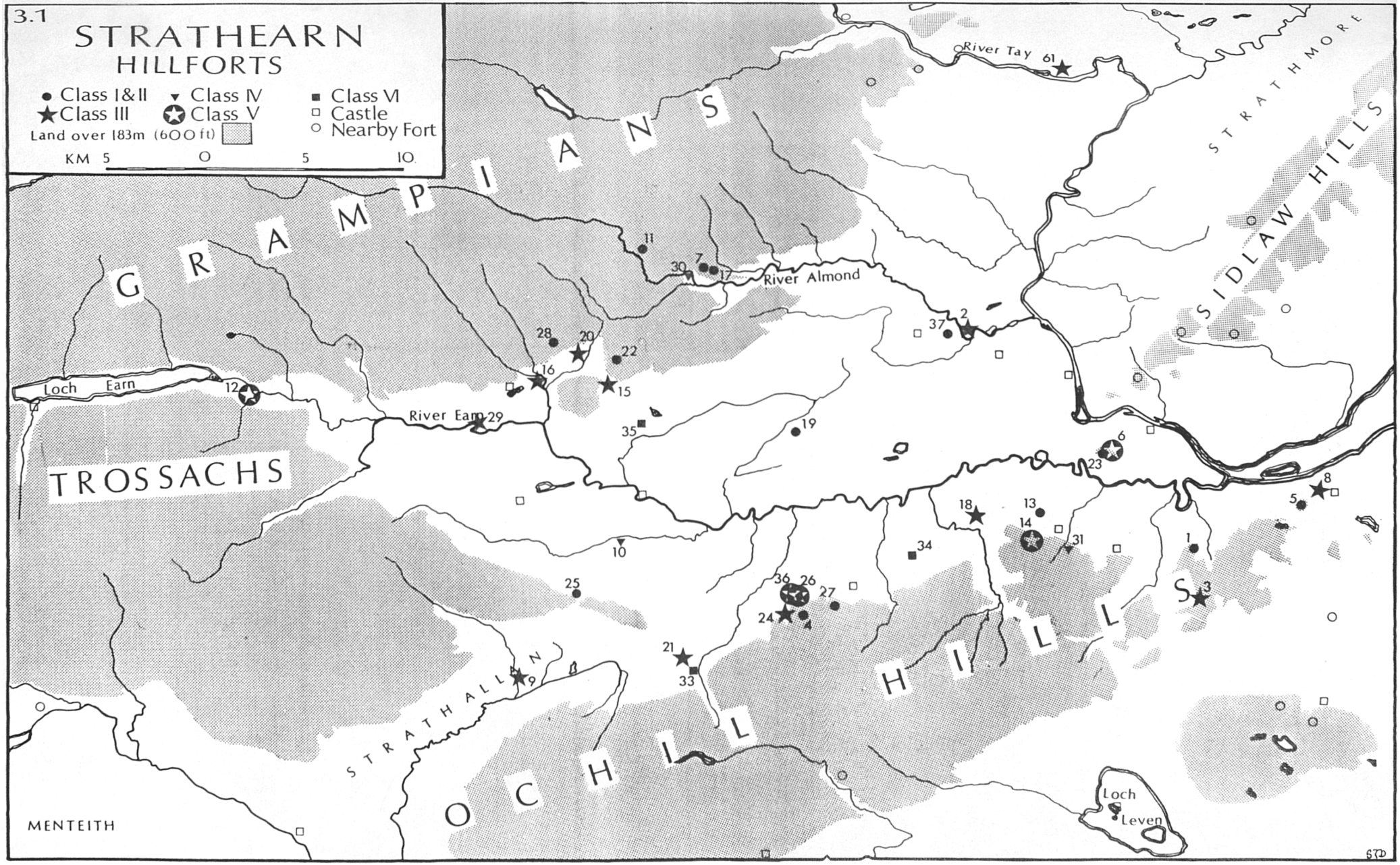
No.	NAME	Grid Ref	Principal Reference	Alt	Remote	Area:t	Area:i	At/Ai	Class	Period	Fig.
1	ABERNETHY, Castle Law	NO18301533	PSAS 33:13-33, 34:776-9	210	Y	0.2	0.15	1.3	I	IA	3.6
2	ALMONDBANK, Pitcairnf'ld	NO068 262	PSAS 34: 56	40	N	0.4	0.2	2.0	III	?DA	3.8
3	BEINS LAW	NO18491233	Leighton 1840 2:207, OS card	268	N	?	?	?	?III	?IA	n/a
4	BEN EFFREY	NN98021153	PSAS 34: 72	350	Y	0.4	0.2	2.0	I	?IA	3.6
5	BLACK CAIRN HILL	NO23341714	Feachem 1963:126.	237	Y	1.0	0.8	1.2	I	?IA	3.6
6	CARNAC, Moncreiffe Hill	NO13551995	PSAS 34:80, Feachem 1963:145.	221	N	3.0	0.25	12	?I/V	?DA	3.12
7	CHASTLE A TUIM DUBH	NN93702932	Sherriff 1978: 84, 122.	240	Y	0.1	0.1	1.0	I	?IA	3.6
8	CLATCHARD CRAIG	NO24351780	RCAHMS 1933:5	90	N	1.5	0.2	7.5	V	DA	3.8
9	CRINA HILL, Braco	NN83380936	PSAS 34: 54	120	N	0.6	0.3	2.0	III	?DA	3.8
10	MANCHANY, Drumness	NN90261580	PSAS 87:38, RCAHMS MLS	60	N	0.2	0.15	1.3	IV	?DA	3.9
11	DUN MOR	NN90773032	PSAS 34:67-9, Feachem 163:146.	465	Y	0.8	0.65	1.2	I	?IA	3.6
12	DUNDURN	NN70802327	Christison 1898, PSAS 34:64-8, Alcock & Driscoll 1985	152	N	2.0	0.4	5	V	DA	3.12
13	EAST DUMBULIS, Law of	NO101 169	MacLagan 1875, OS card	95	N	1.0	1.25	1.25	I	?IA	3.6
14	FORGANDENNY, Castle Law	NO09881544	MacLagan 1875, PSAS 27:14-22, 34:74-7	265	Y	2.4	0.4	6	I/V	IA/?DA	3.12
15	CULTOQUHEY, Gilmerton	NN89052359	PSAS 34:56, RCAHMS MLS	110	N	0.5	0.17	3	III	?IA	3.8
16	HOSH, Ochtertyre	NN85092589	RCAHMS MLS, OS card	120	N	0.3	0.15	2	III	?IA	3.8
17	LENE, Middle Lethendy	NN944 293	OSA 15:256-7. Probably same as No. 32.	215	N	?0.9	?0.5	1.8	I	?IA	n/a
18	JACKSHAIRS	NO07201680	Skene 1828-51 4:256, PSAS 34:106	95	N	0.6	0.3	2	IIIb	?DA	3.8
19	KEMPY	NN878 212	PSAS 32:430, 34:119-20, 35:37-8.	70	N	0.35	0.25	1.40	II	?IA	3.7
20	KNOCK DURROCH	NN87742551	D & E 1957:24, OS card	150	N	0.6	0.15	4	III	?DA	3.9
21	LOANINGHEAD, Crieff Jnct	NN92381003	PSAS 34:54-6	150	N	0.9	0.3	3	III	?DA	3.9

Table 3.1 Gazeteer of Strathearn Hillforts (b:datafort.frm)

No.	NAME	Grid Ref	Principal Reference	Alt	Remote	Area:t	Area:i	At/Ai	Class	Period	Fig.
22	MILQUHANZIE HILL	NN89442494	OS card	395	Y	0.35	0.3	1.2	I	?IA	3.6
23	MONCREIFFE HILL	NO13131988	PSAS 34:80	170	N	0.35	0.3	1.2	II	?IA	3.7
24	OGLE HILL	NN96941148	PSAS 34:72	240	N	0.5	0.1	5	III	?DA	3.9
25	ORCHILL	NN86951226	PSAS 35:21-3	180	N	0.35	0.2	1.75	II	?IA	3.7
26	PAIRNEY, Castle Craig	NN97621273	PSAS 114:574-7	170	N	2.3	0.06	38	I/V	IA/?DA	3.12
27	ROSSIE LAW	NN997 124	PSAS 34:72-5, Feacham 1963:146.	324	Y	3	2.5	1.2	I	?IA	3.6
28	SKIRLEY CRAIG	NN86262590	OS card	339	Y	0.35	0.3	1.2	I	?IA	3.6
29	TOM A'CHAISTEL	NN82472169	NSA 10:734-5, OS card	132	N	0.75	0.2	3.75	III	?DA	3.9
30	TOM-NAM-BROCH, Fendoch	NN91352849	OSA 12:744, OS card	210	N	?.35	?.35	1.00	IV	DA	n/a
31	WEST DRON HILL	NO115 150	RCAHMS AP PT/9999-10000	280	Y	0.25	0.25	1.00	IV	?DA	n/a
32	CNOC CAR	NN944 293	OS card Same as No. 17.	215	N	?.9	?.5	1.8	I	?IA	n/a
33	GLEN EAGLES CASTLE	NN92890924	OS card	130	N	0.5	0.1	5	?III/VI	??DA/MED	3.18
34	HA' TOWER, Woodhead	NO04271450	RCAHMS MLS	90	N	0.4	0.06	6.7	?III/VI	??DA/MED	3.18
35	INCHBRAKIE CASTLE	NN90312174	PSAS 34:47, RCAHMS MLS	40	N	3.0	2.5	1.2	?I/VI	??IA/MED	3.18
36	KAY CRAIG, Pairney	NN97511275	Sherriff 1978:95	160	N	0.09	0.01	9	V	?DA	3.12
37	METHVEN WOOD, Almondbank	NO05702595	D & E Scot. 1980:41, Sherriff 1978:95	50	N	?	?	n/a	?II	?IA	n/a
38	EASTFIELD	NO09111294	AP O.S. 65.47:69-70, OS Card.	130	N	.75	n/a	n/a	I	?IA	n/a
39	WESTER CULTMALUNDIE	NO03002235	RCAHMS AP PT/10262	100	N	.67	*n/a*	*n/a*	*I*	*?IA*	*n/a*
40	MONEYDIE	NO074 296	RCAHMS AP PT/15172-5	100	N	.75+	n/a	n/a	I+	?IA	3.23
41	SOUTH MAINS, Innerpeffray	NN907 179	RCAHMS AP PT/4694-7	70	N	.5-1	n/a	n/a	I+	?IA	3.23
42	WILLIAMSTON	NN97242245	RCAHMS AP PT/11003	40	N	?.75	.25	n/a	I+	?IA	3.23
43	CLOAN	NN96001155	RCAHMS AP PT/6781	100	N	.25+	n/a	n/a	I+	?IA	3.23
44	WAULKMILL	NN928 158	RCAHMS AP PT/10482	30	N	.5+	n/a	n/a	II	?IA/?DA	3.24
45	THORN	NN96191207	RCAHMS AP PT/14090-1	95	N	.5+	n/a	n/a	II	?IA	3.24

Table 3.1 Gazeteer of Strathearn Hillforts (b:datafort.frm)

No.	NAME	Grid Ref	Principal Reference	Alt	Remote	Area:t	Area:i	At/Ai	Class	Period	Fig.
46	CRAIGSHOT	NN919 171	RCAHMS AP PT/11084	30	N	.3+	n/a	n/a	II	?IA	3.24
47	NORTH LODGE, Invermay	NO052 162	RCAHMS AP PT/56-98-5702	40	N	.12+	n/a	n/a	II	?IA/?DA	3.24
48	DUN KNOCK, Dunning	NO023 142	RCAHMS AP PT/6278-81	80	N	.5-1	n/a	n/a	III	?DA	3.25
49	BROXY KENNELS	NO09102790	RCAHMS AP PT/6481	25	N	1	n/a	n/a	III	?DA	3.25
50	HILTON HOUSE	NO114 201	RCAHMS AP PT/5940-2	50	N	1	n/a	n/a	III	?DA	3.25
51	PITCAIRNGREEN	NO067 268	RCAHMS AP PT/4593	50	N	.25	n/a	n/a	III?	?IA/?DA	3.25
52	INVERDUNNING HOUSE	NO024 160	RCAHMS AP PT/5717-19	30	N	.25+	n/a	n/a	II?	?IA	3.24
53	DRUMEND WOODS	NN997 216	RCAHMS AP PT/9304-5/CN	100	N	1	n/a	n/a	I	?IA	n/a
61	INCHTUTHILL	NO11523930	PSAS 39:182-242		N	0.7	0.3	2.5	III	DA	3.9


3.1
STRATHEARN
HILLFORTS
Class I&II
Class III
Class IV
Class V
Class VI
Castle
Nearby Fort
Land over 183m (600 ft)
KM 5 0 5 10
GRAMPIANS
TROSSACHS
OCHILL HILLS
SIDLAW HILLS
STRATHMORE
STRATHALLAN
River Tay
River Almond
River Earn
Loch Earn
Loch Leven
MENTEITH
61
11
30
7
17
37
2
28
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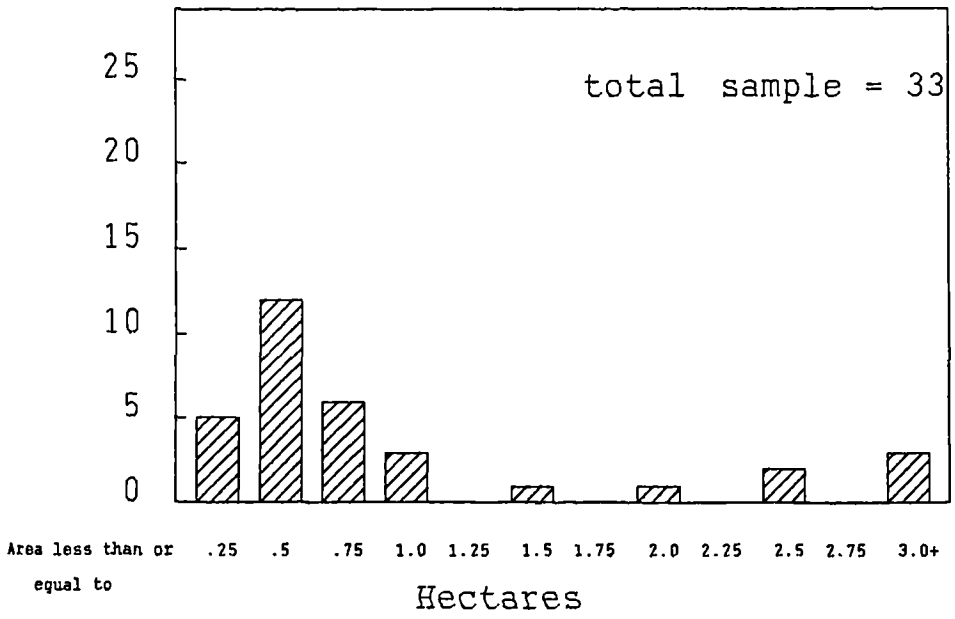
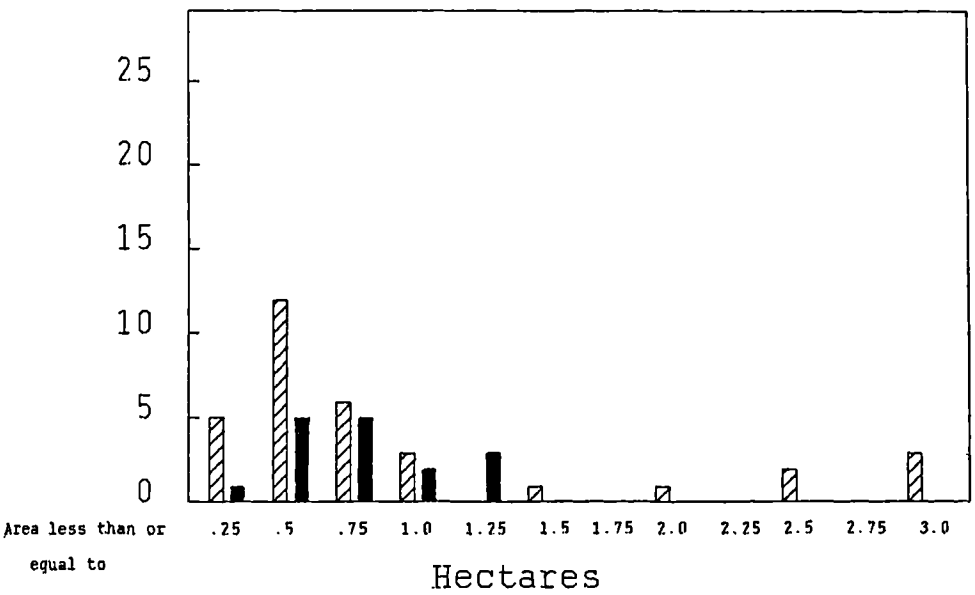
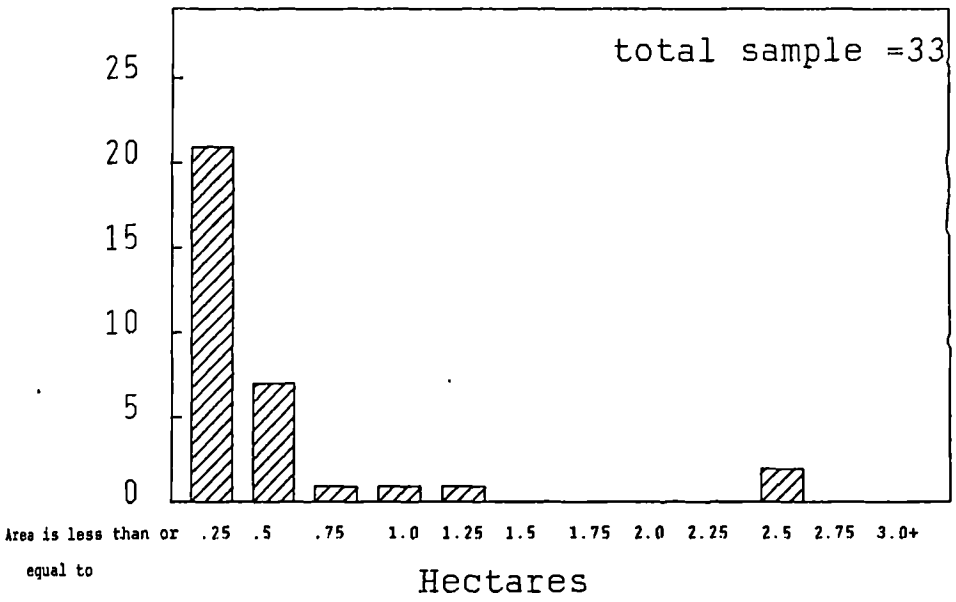


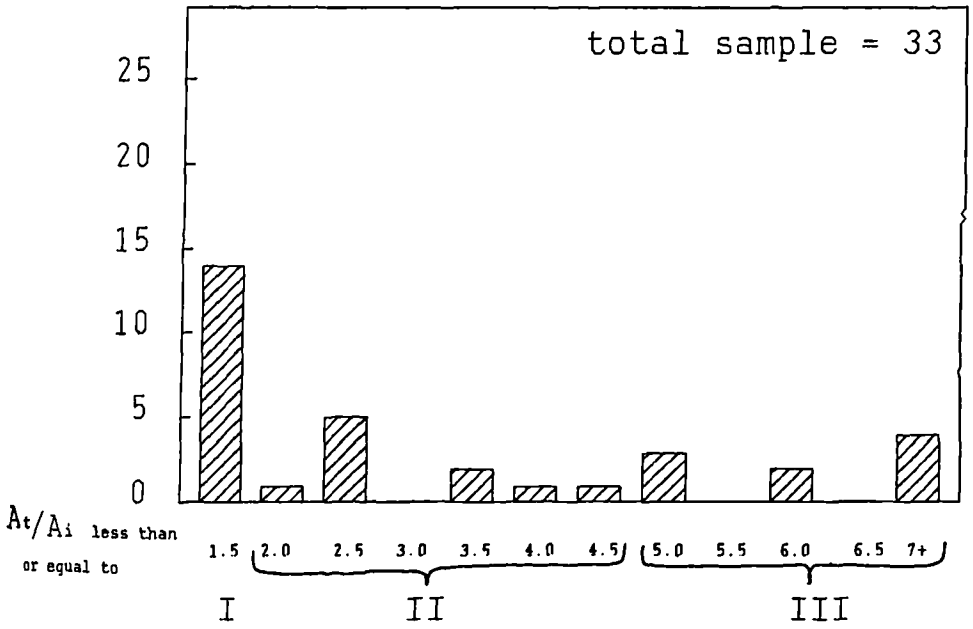
3.2a Total Areas of Upstanding Hillforts Compared.



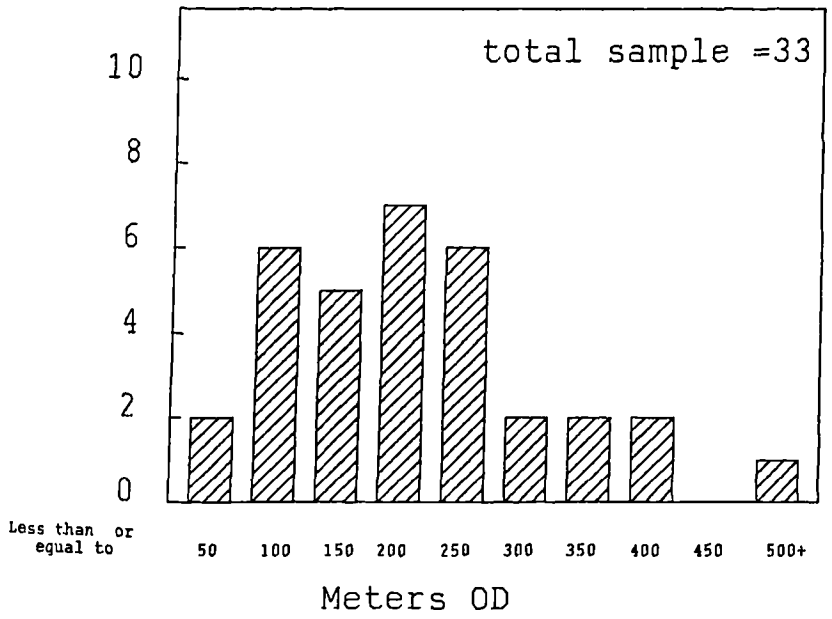
3.2b Total Areas of Upstanding Hillforts (t=33, striped) compared with AP Forts (t=16, solid).



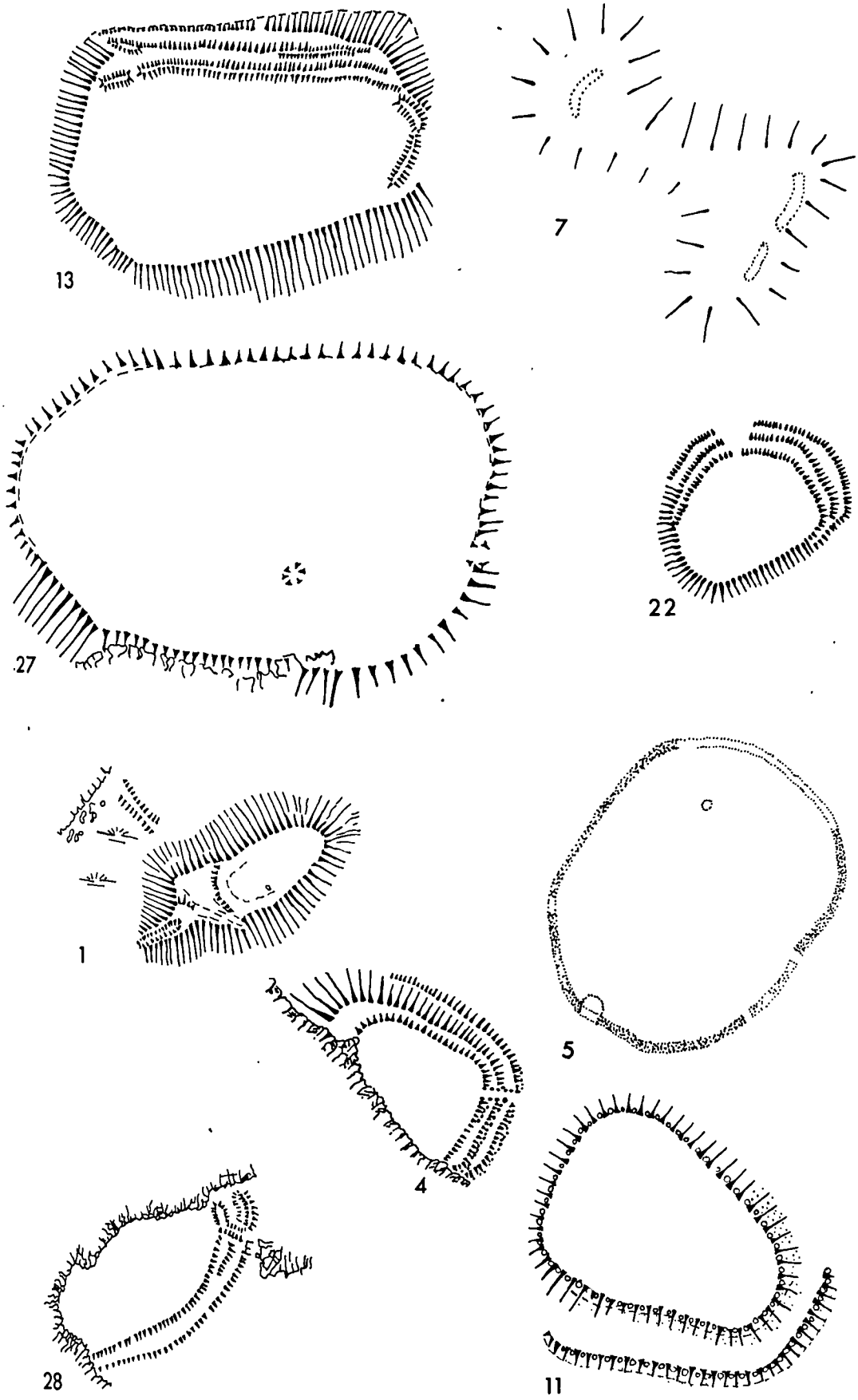
3.3 Internal Areas of Upstanding Hillforts Compared.



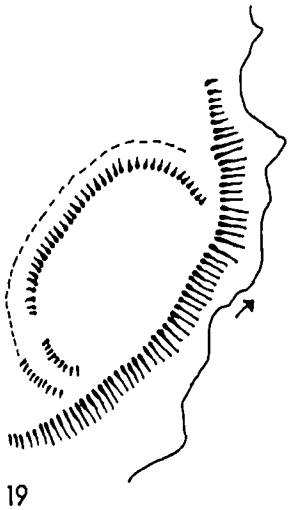
3.4 Coefficient of Elaboration (A_t/A_i) of Upstanding Hillforts Compared.



3.5 Altitudes of Upstanding Hillforts Compared.



3.6 Comparative Plans of Class I Hillforts at 1:2500. 13 Law of East Dumbulis, 7 Castle A Tuim Dubh, 27 Rossie Law, 22 Milguhanzie Hill, 1 Castle Law, Abernethy, 4 Ben Effray, 5 Black Cairn Hill, 28 Skirley Craig, 11 Dun Mor.



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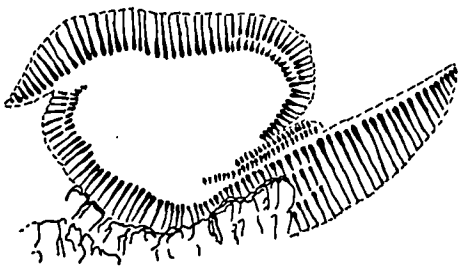

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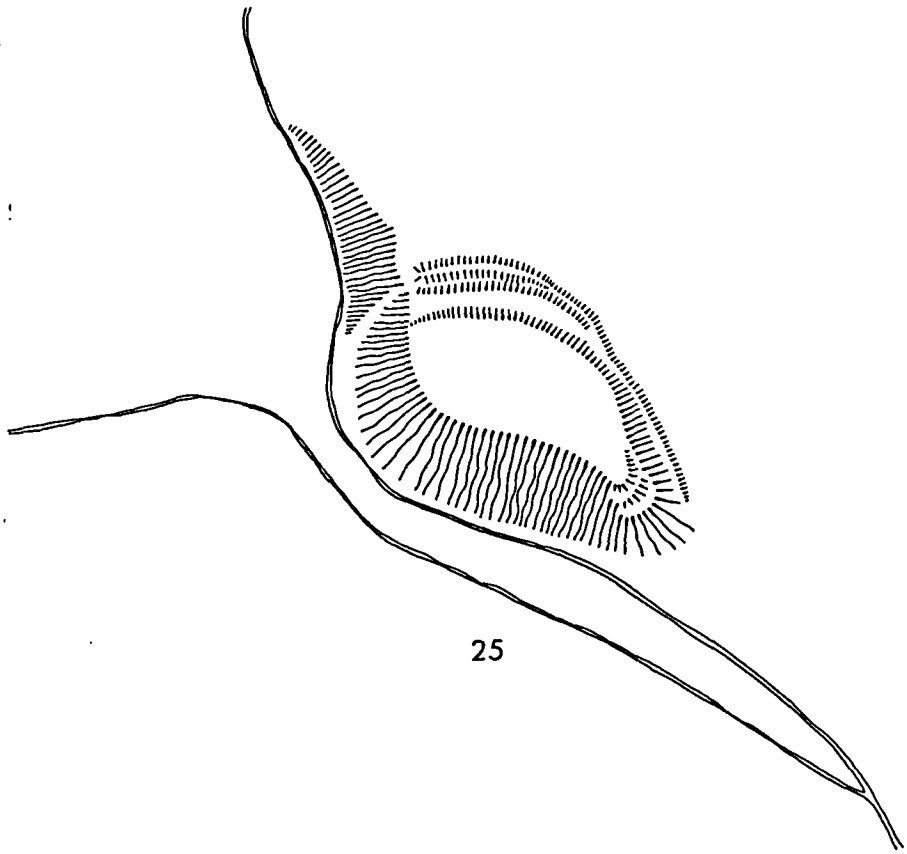
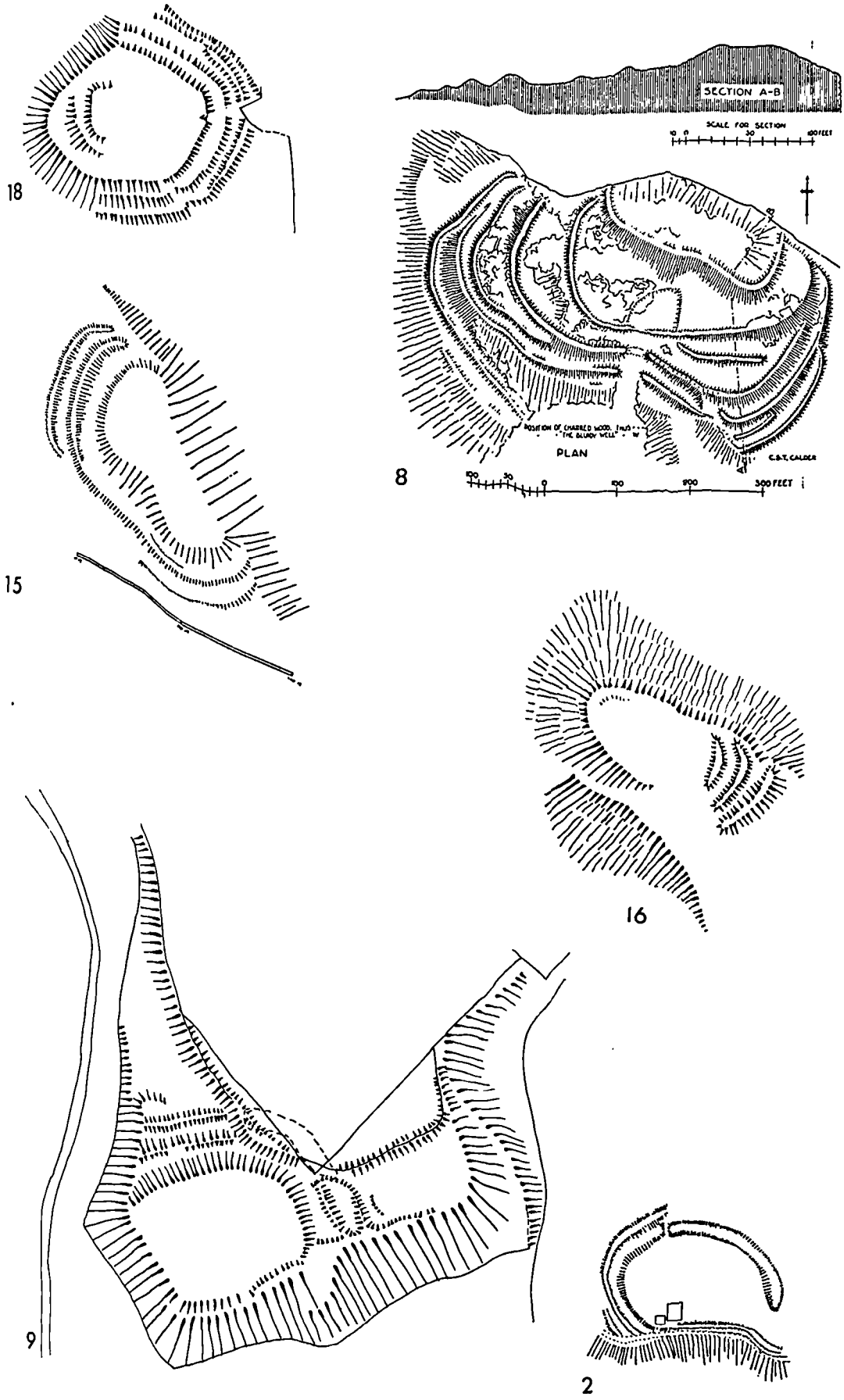
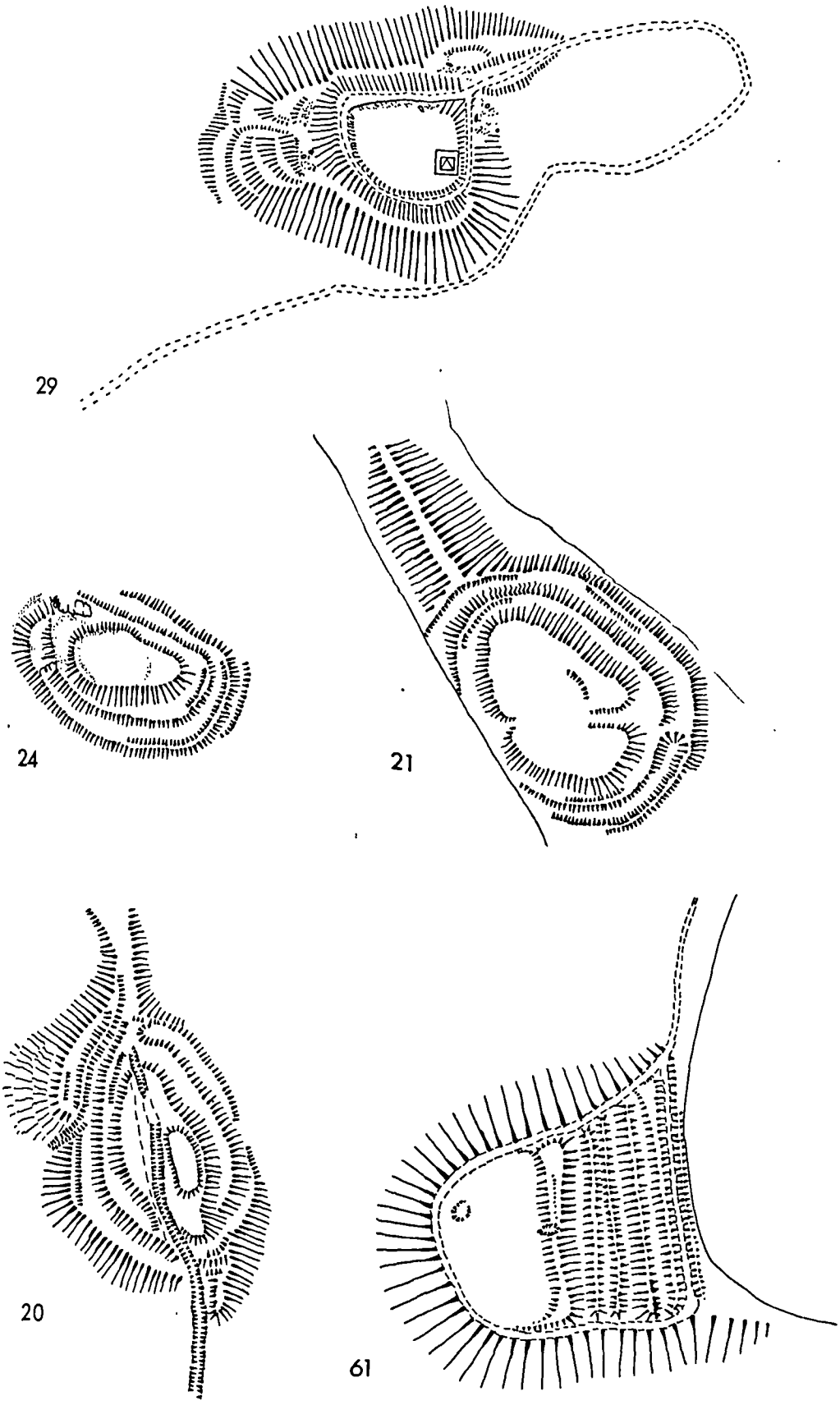


25

3.7 Comparative Plans of Class II Hillforts at 1:2500. 19 Kempy, 23 Moncreiffe Hill, 25 Orchill.



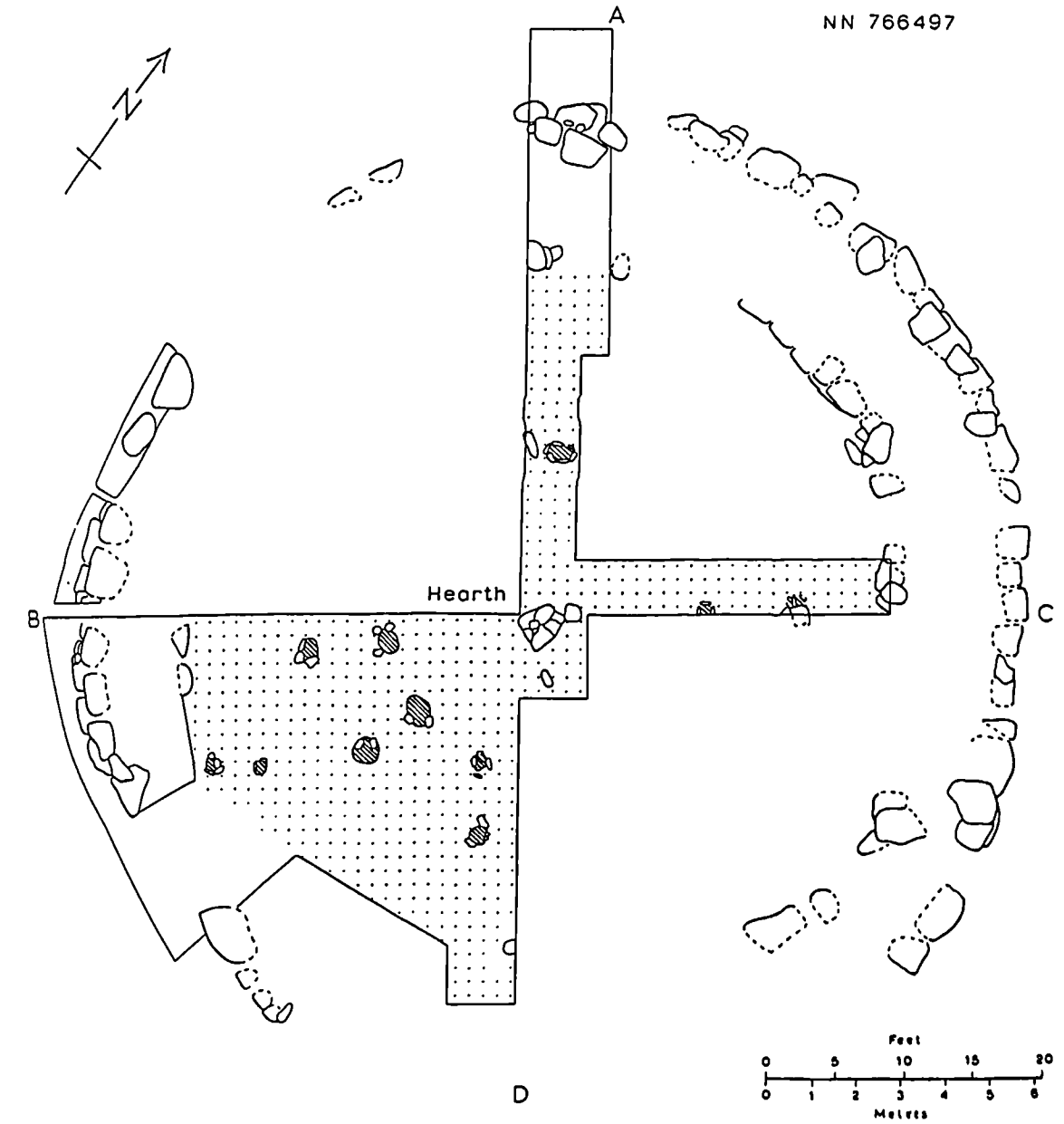
3.8 Comparative Plans of Class III Hillforts at 1:2500. 18 Jackshairs, 8 Clatchard Craig, 15 Coltoquhey, 16 Hosh, 9 Crina Hill, 2 Almondbank.

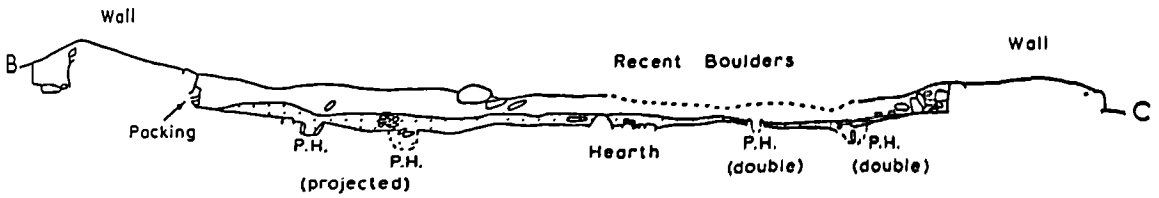


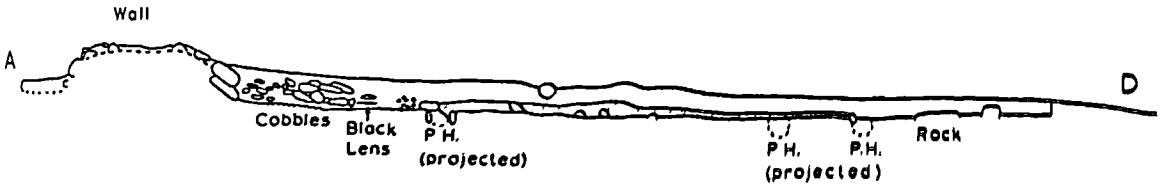
3.9 Comparative Plans of Class III Hillforts at 1:2500, continued.
29 Tom A'Chaistel, 24 Ogle Hill, 21 Loaninghead, 20 Knock Durroch,
61 Inchtuthill.

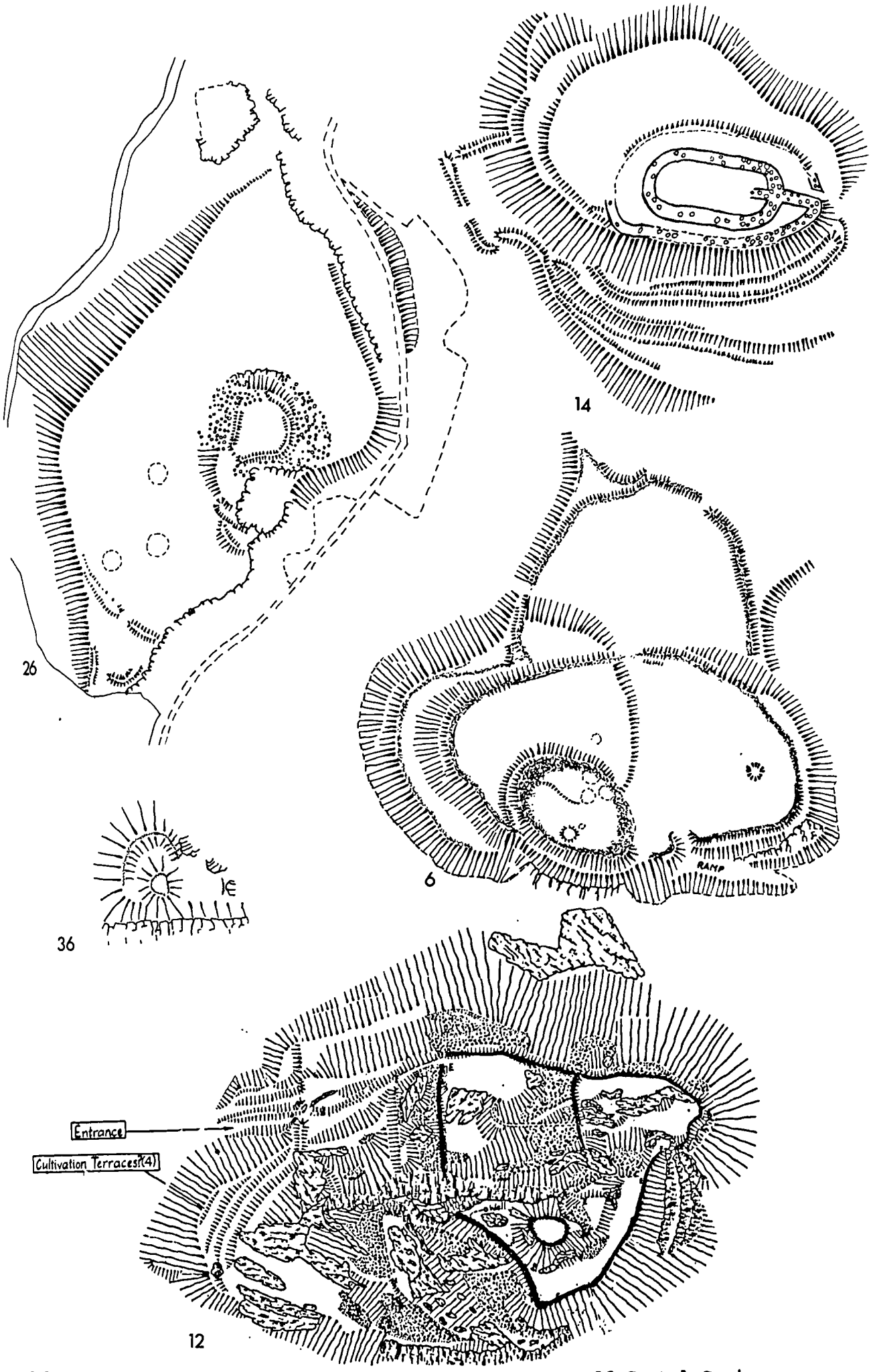
3.10 Distribution of Ringforts in North-West Perthshire (after Stewart 1969) and plans of Hillfort no.10 Manchany and Litigan Ringfort at 1:2500.

3.11 LITIGAN–PERTHSHIRE

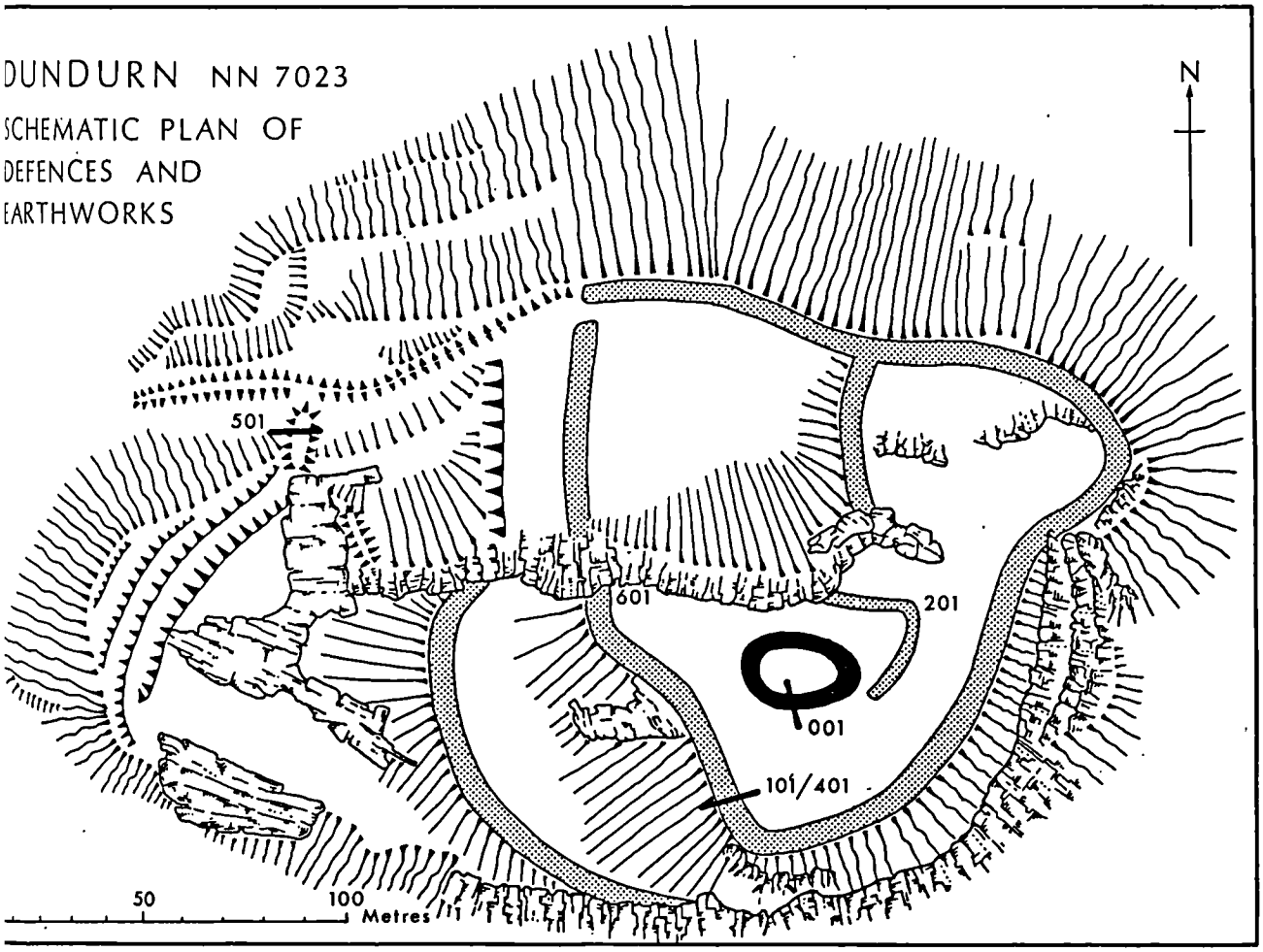


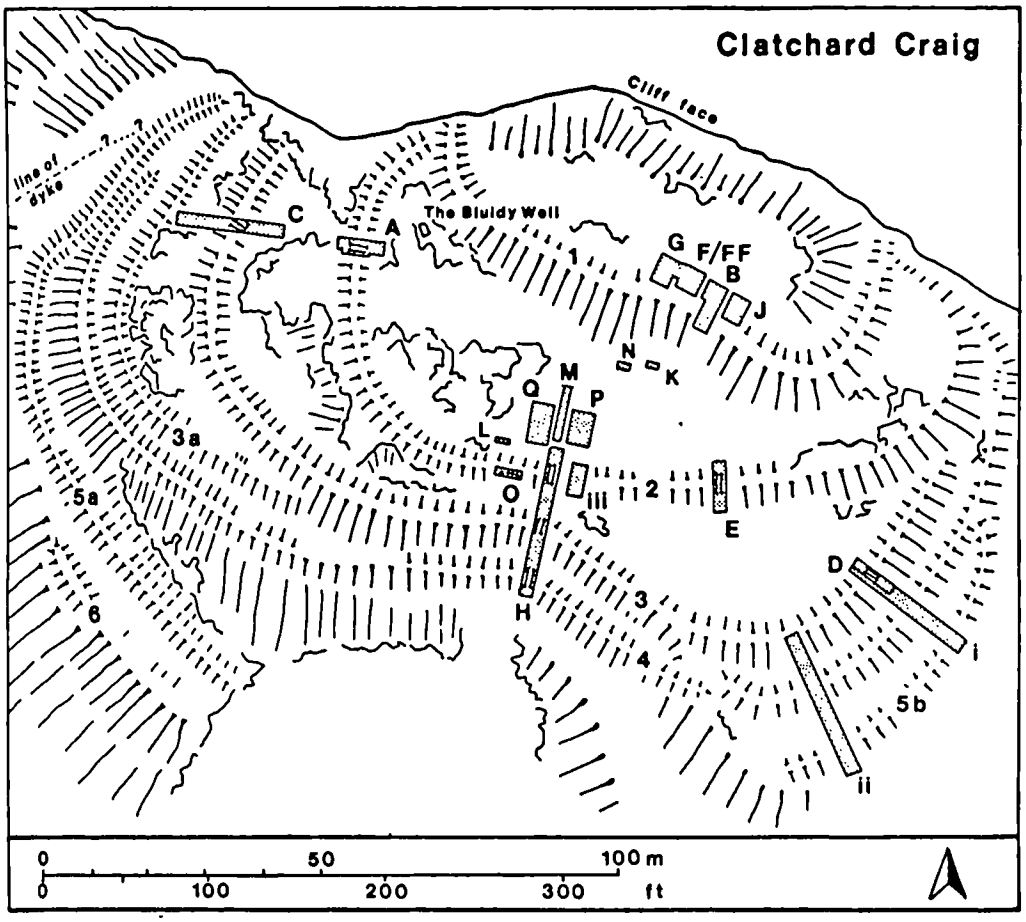






3.12 Comparative Plans of Class V Hillforts at 1:2500. 26 Castel Craig, Pairney, 14 Castle Law, Forgandenny, 36 Kay Craig, Pairney, 6 Carnac, Moncreiffe Hill, 12 Dundurn.





3.13 EXCAVATION PLANS

3.14 SCHEMATIC DIAGRAM OF DUNDURN'S ARCHAEOLOGICAL SEQUENCE

FOR DETAILED INFORMATION ON C-14 SAMPLES SEE FIG 3.17

PERIOD		TERRACE	CITADEL
II	STONE	**NUCLEAR FORT** RAMPART CONSOLIDATION: INTERIOR SPACES BUILT BEHIND, HEARTH & INTERNAL WALLS 9th CENTURY IMPORTED POT *HAR 2003, 2518 GU 1040* MASSIVE STONE RAMPART SEALING DESTRUCTION DEBRIS & *GU 1041*	OVAL DRY STONE ENCLOSURE *(NO C-14)*
DESTRUCTION (IN 683 ?)		BURNT DEBRIS FROM 'NAILED TIMBER CITADEL' PRESENT ON TERRACE & SLOPES OF CITADEL	
IB	TIMBER & STONE	INTERIOR SPACES: WALLS & POSTS SET ON CLAY FILL CONSTRUCTIONAL DEPOSITS (LAYER OF CLAY FILL) REHABILITATION E-WARE	Built in either IA or IB NAILED TIMBER BUILDING UTILIZING ROCK CUT GROOVES & ROMAN RUBBLE *HAR 2000 2001 2002* *GU 1041*
IA	TIMBER	VEGETABLE LAYER: MIDDEN (SHOE) *GU 1042 & HAR 2519* DESTROYED STOCKADE DN 122 *UB 1321* WATTLE FLOORING: INTERIOR SPACE (HAZEL WICKER WORK ON EARLIER MIDDEN) U/X MIDDEN BELOW WATTLE *GU 1043*	SCANT TRACES OF ACTIVITY SEALED BELOW INTERIOR PAVING

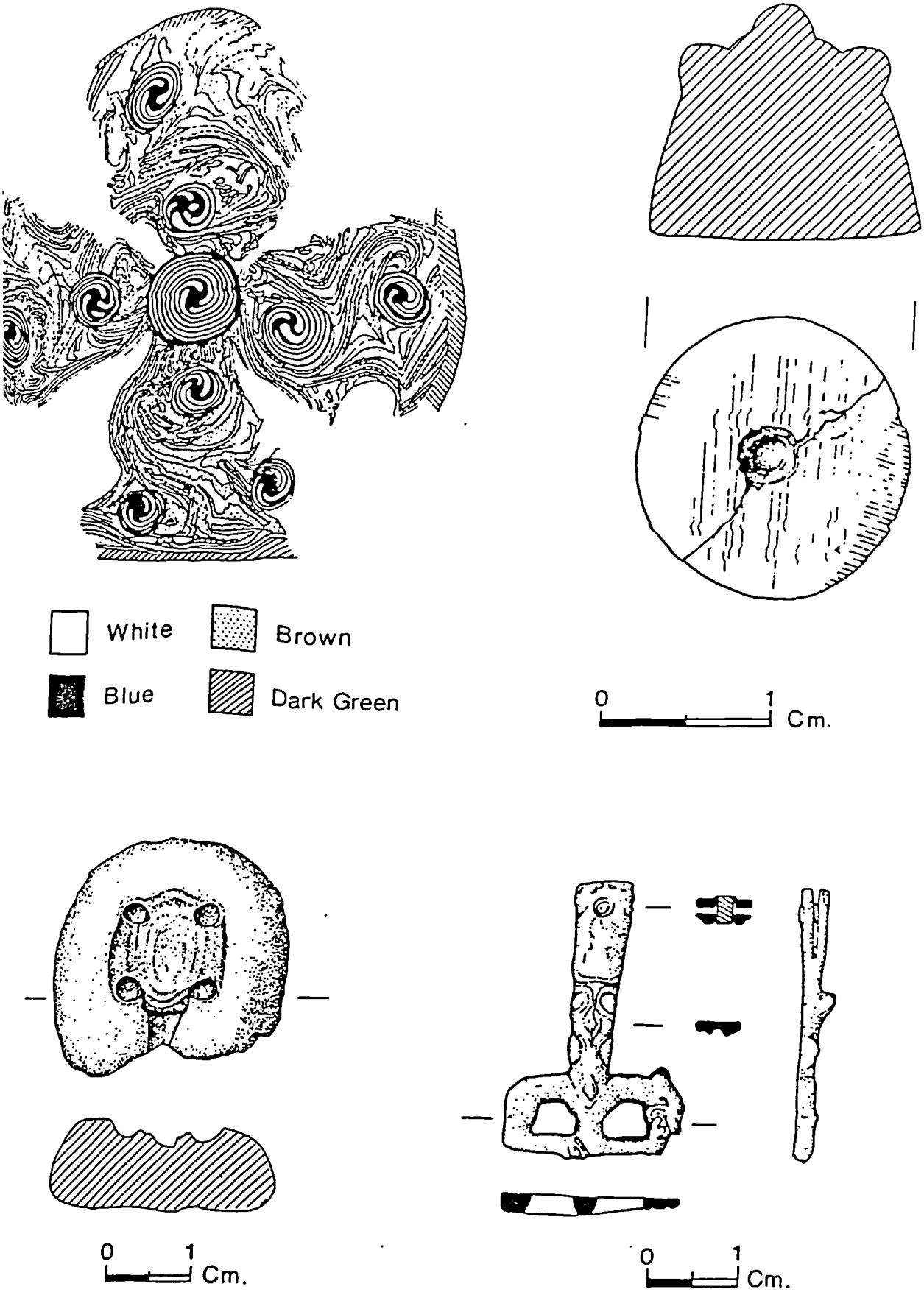
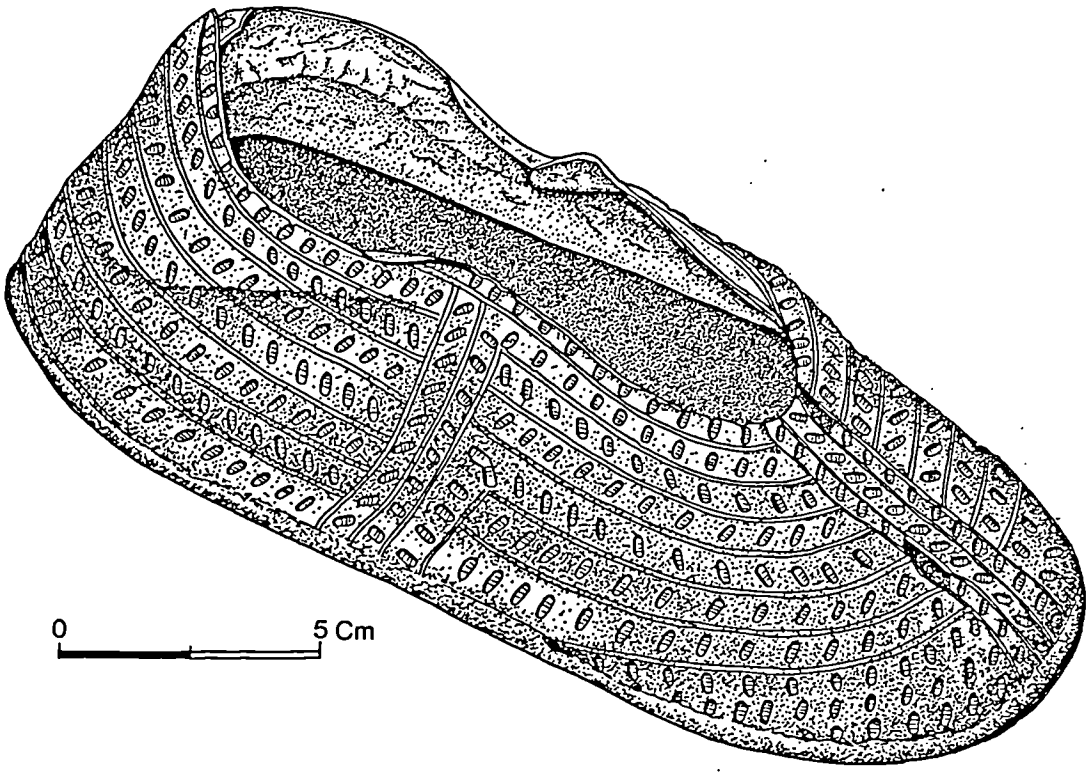
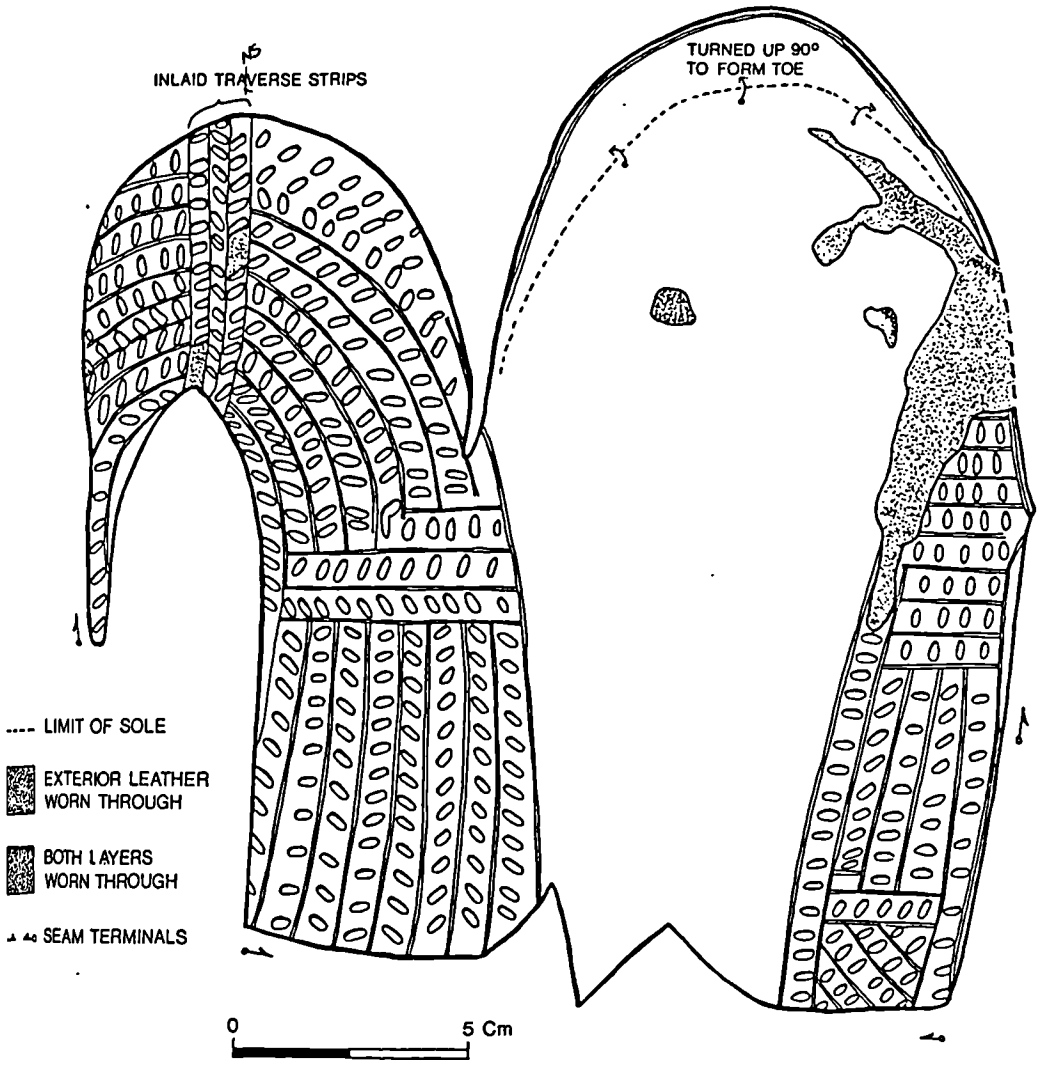


Figure 3.15 Dundurn finds: glass boss, top; clay mould for stick-pin with bossed head, bottom left; zoomorphic silvered bronze strap-end, bottom right.





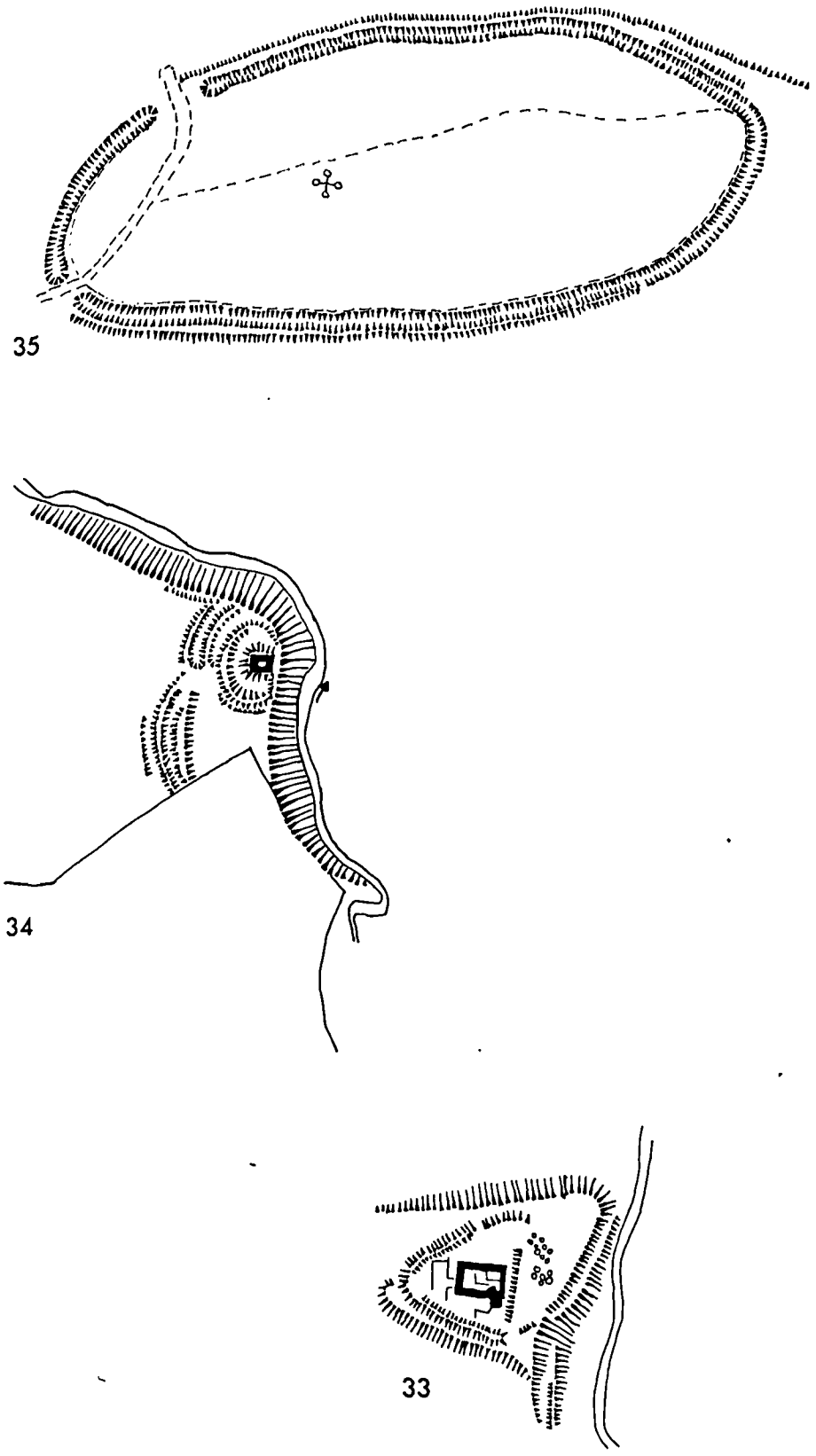
3.16 Dundurn Shoe

3.17 DUNDURN RADIOCARBON DATING SUMMARY: CALIBRATED FOLLOWING STUIVER (1982) ERROR QUOTED AT ±1 SIGMA[1]

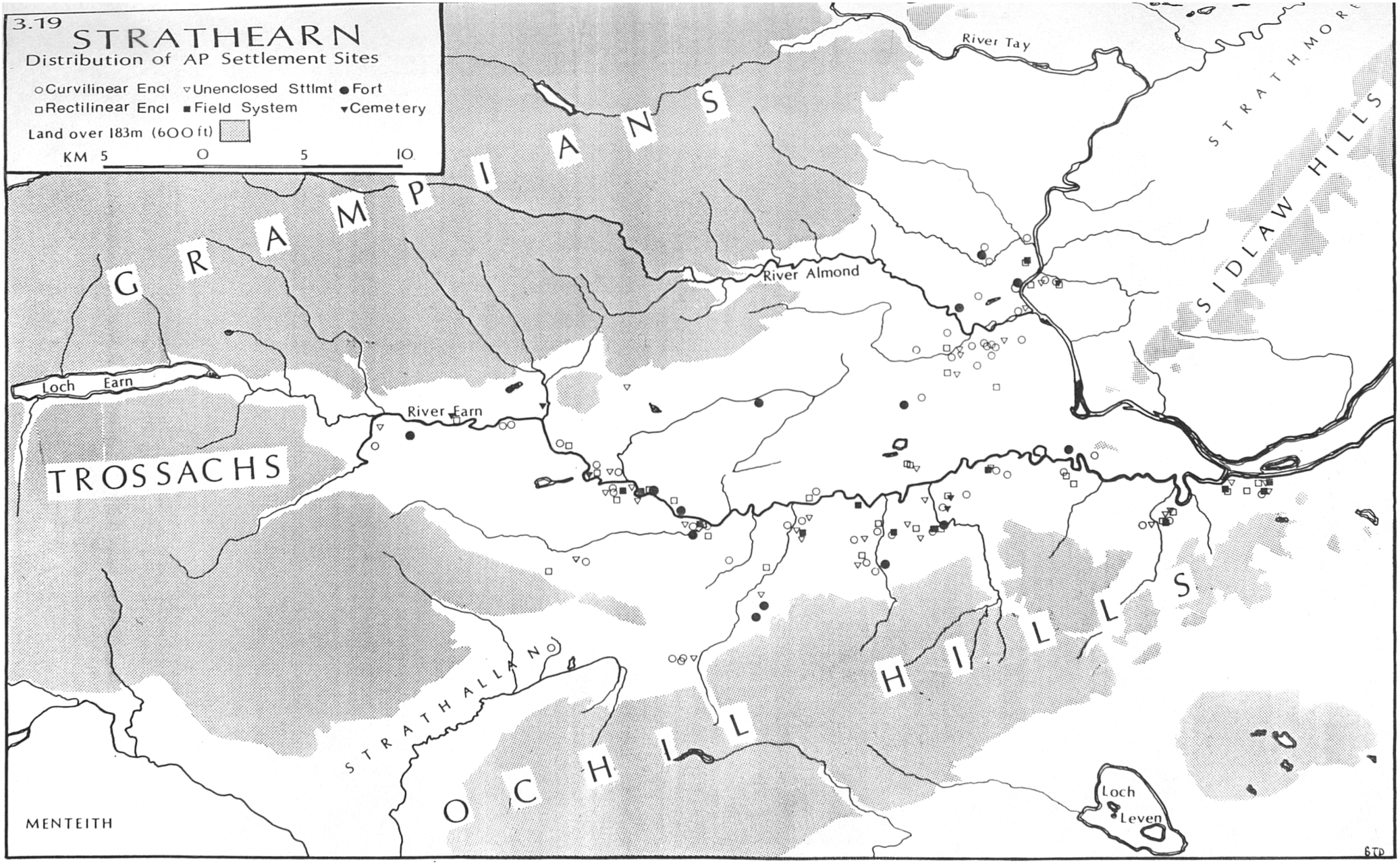
SITE REF.	LAB REF.	COMPOSITION OF SAMPLE	CONTEXT	ARCHAEOLOGICAL IMPLICATIONS	RADIOCARBON AGE IN YEARS B.P.	DENDRO-AGE IN YEARS AD.
005	HAR 2518	MIXED CHARCOAL, NO VISIBLE TWIGS, 125g	106	PERIOD II: TERRACE	1190±60	820±100*
004	HAR 2003	CHARCOAL TWIGS, 50g	106	RAMPART	1220±70	775±70
007	GU 1040	MIXED CHARCOAL, INCLUDING 7g TWIGS, 75g	406	CONSOLIDATION	1330±60	670±60
008	GU 1041	MIXED CHARCOAL, INCLUDING TWIGS, 30g	415	→ TPQ FOR TERRACE RAMPART ←	1365±65	665±65
001	HAR 2000	CHARCOAL, HAZEL TWIGS, 59g	012	CONSTRUCTION MATERIALS	1190±70	820±110*
002	HAR 2001	CHARCOAL, HAZEL TWIGS, 37g	013, 014 17A, 017B	FROM PRIMARY	1260±70	730±110*
003	HAR 2002	CHARCOAL, OAK BEAMS, 200g	013	TIMBER CITADEL	1310±70	680±70
006	HAR 2519	UNBURNT HAZEL TWIGS (330g sample divided between Harwell and Glasgow)	426	PERIOD IA: TERRACE MIDDEN ACCUMULATION	1390±60	640±60
009	GU 1042		426	ON WICKER FLOOR	1510±60	545±60
011	UB 1321-5	DN 122: OAK TIMBER (High precision Wiggle-matched Date, calibrated independently of Stuiver[2])	426	→ LARGE TIMBER STRUCTURE ← (Putative Palisade)	——	608 +15 −30
010	GU 1043	ANIMAL BONES, 219g	427	→ EARLIEST OCCUPATION OF SITE	1435±65	680±80*

1. CERTAIN RADIOCARBON AGES CORRESPOND TO MORE THAN ONE DENDRO-AGE. THE DENDRO-AGE FOR SUCH DATES (MARKED *) IS CALCULATED BY TAKING THE MEAN OF THE VARIOUS DENDRO-AGES. THE ERROR FOR THESE DATES IS COMPUTED BY ADDING THE LABORITORY ERROR (SIGMA) TO HALF THE RANGE BETWEEN THE HIGH & LOW ALTERNATIVE DENDRO-AGES. THIS PROCEDURE COVERS THE SAME RANGE AS THE MULTIPLE DENDRO-AGES. BUT PRODUCES VALUES WHICH ARE NOT STRICTLY CALIBRATED DATES NOR ERRORS OF A SINGLE SIGMA.

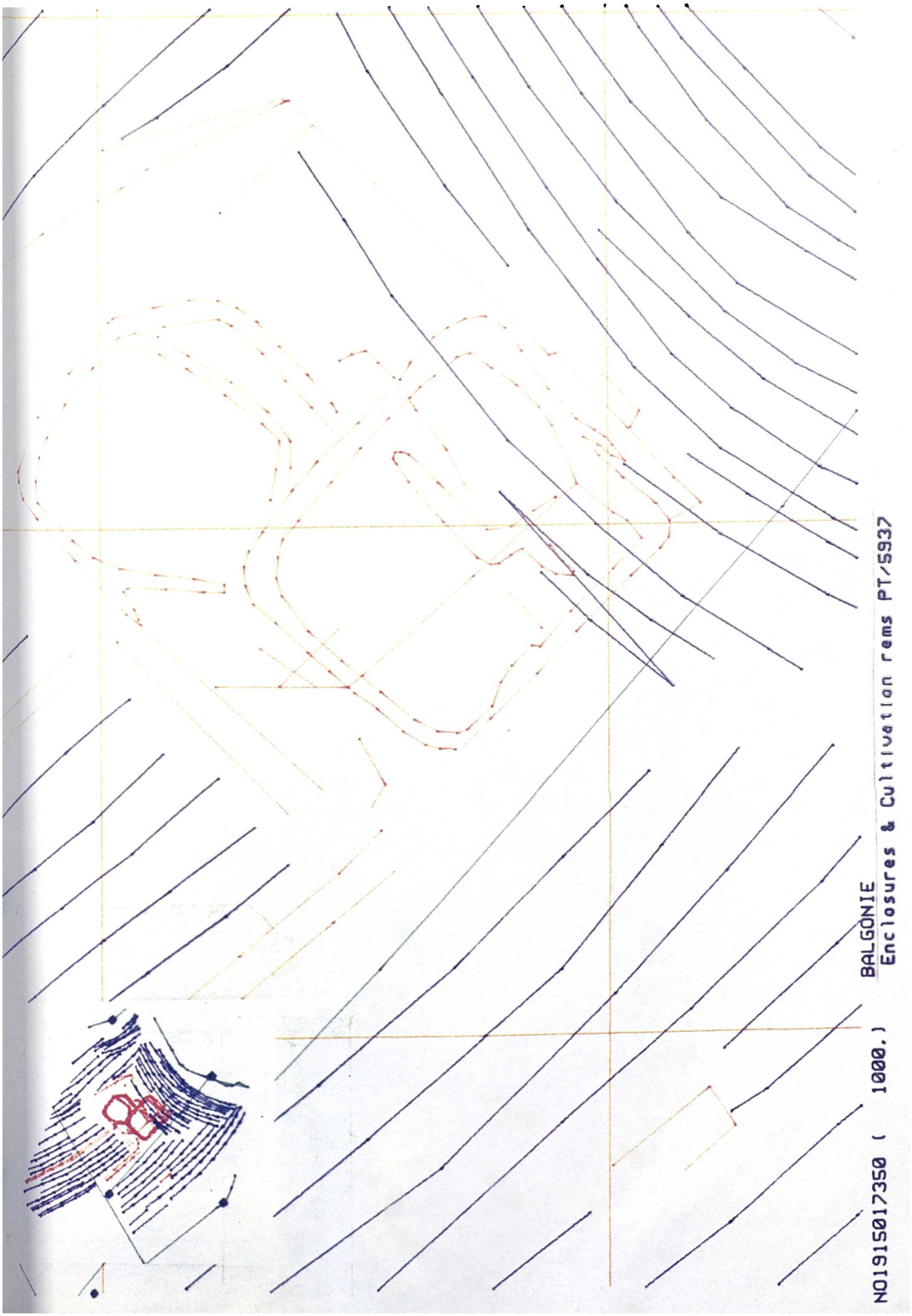
2. DETAILS OF THIS PROCEDURE ARE TO BE FOUND IN PEARSON et al (1983).

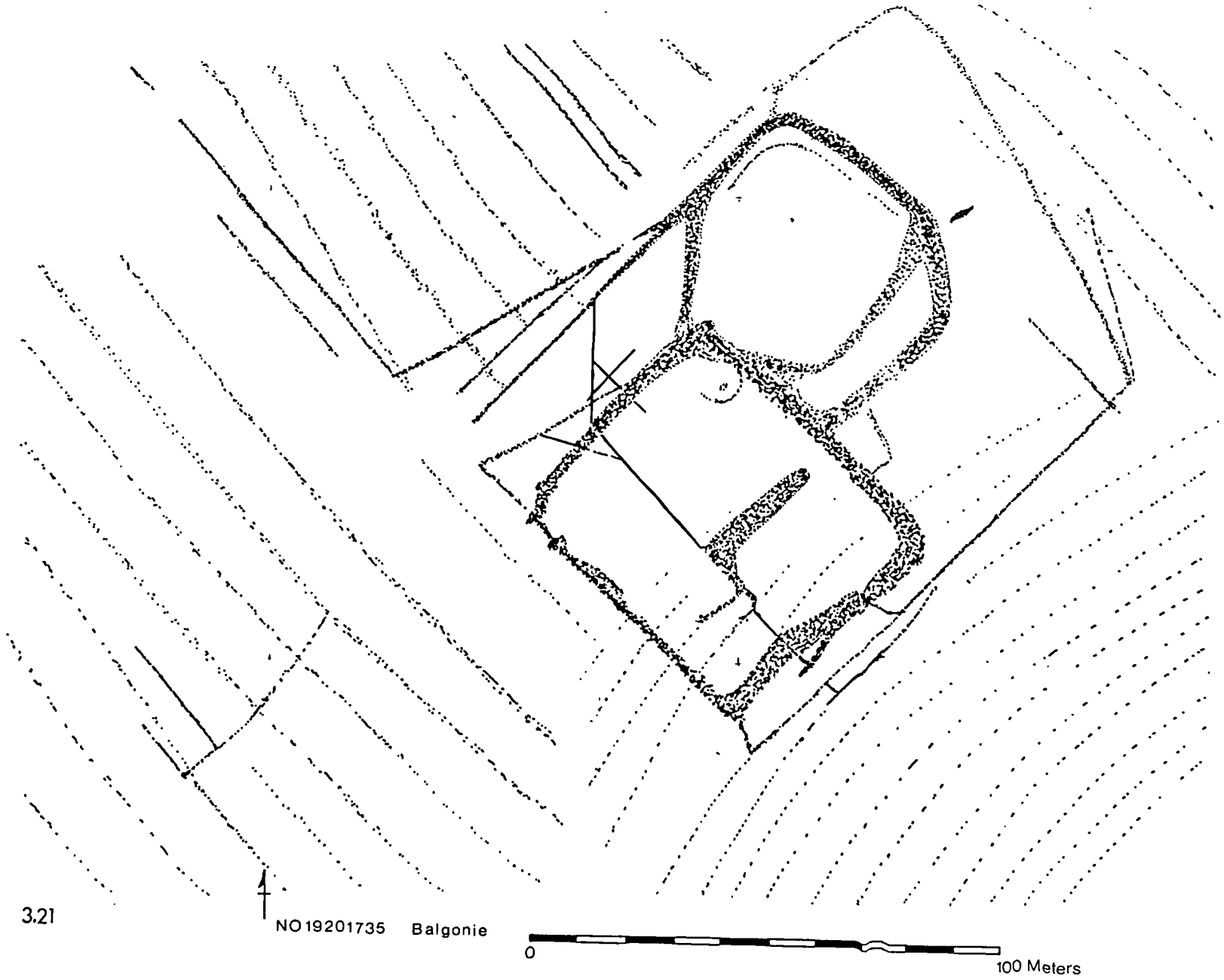


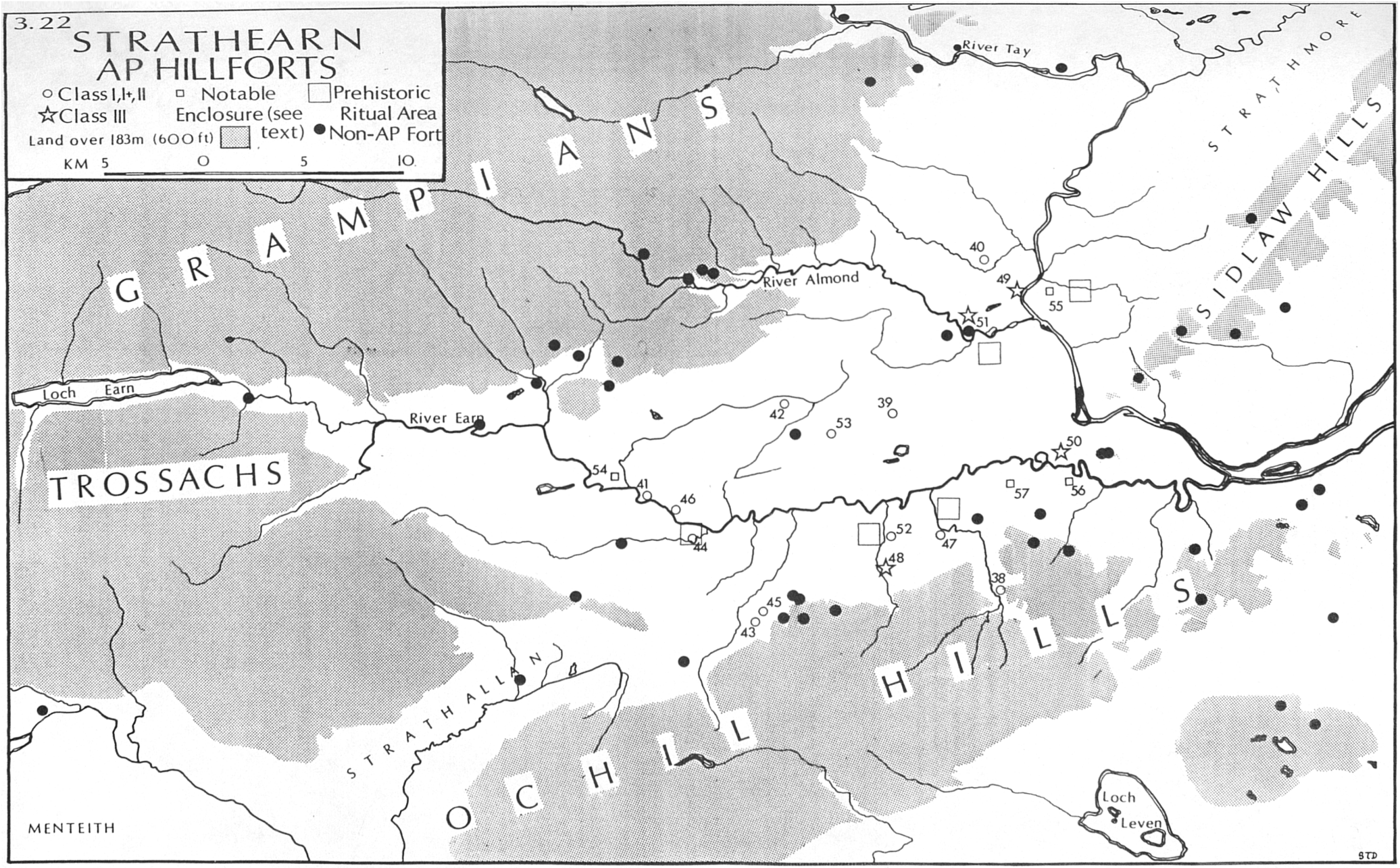
3.18 Comparative Plans of Class VI Hillforts at 1:2500: 35 Inchbrakie Castle, 34 Ha' Tower, 33 Gleneagles Castle.


3.19
STRATHEARN
Distribution of AP Settlement Sites
○Curvilinear Encl ▽Unenclosed Sttlmt ●Fort
□Rectilinear Encl ■Field System ▼Cemetery
Land over 183m (600ft)
KM 5 0 5 10
River Tay
STRATHMORE
SIDLAW HILLS
GRAMPIANS
River Almond
Loch Earn
River Earn
TROSSACHS
STRATHALLAN
OCHILL HILLS
MENTEITH
Loch Leven
GTP

3.20 Raw computer plot at 1:1000 of Balgonie cropmarks based upon RCAHM Scotland photograph PT/5937. Red outlines the ditches, blue indicates cultivation remains, and green shows the modern field boundaries. The black squares represent the control points and the orange lines mark the national grid. The inset shows the same site at 1:10000.




3.21
NO 19201735 Balgonie
0
100 Meters


3.22
STRATHEARN
AP HILLFORTS
Class I, I+, II
Class III
Notable Enclosure (see text)
Prehistoric Ritual Area
Non-AP Fort
Land over 183m (600 ft)
KM 5 0 5 10
GRAMPIANS
TROSSACHS
STRATHALLAN
OCHILL HILLS
SIDLAW HILLS
STRATHMORE
River Tay
River Almond
River Earn
Loch Earn
Loch Leven
MENTEITH
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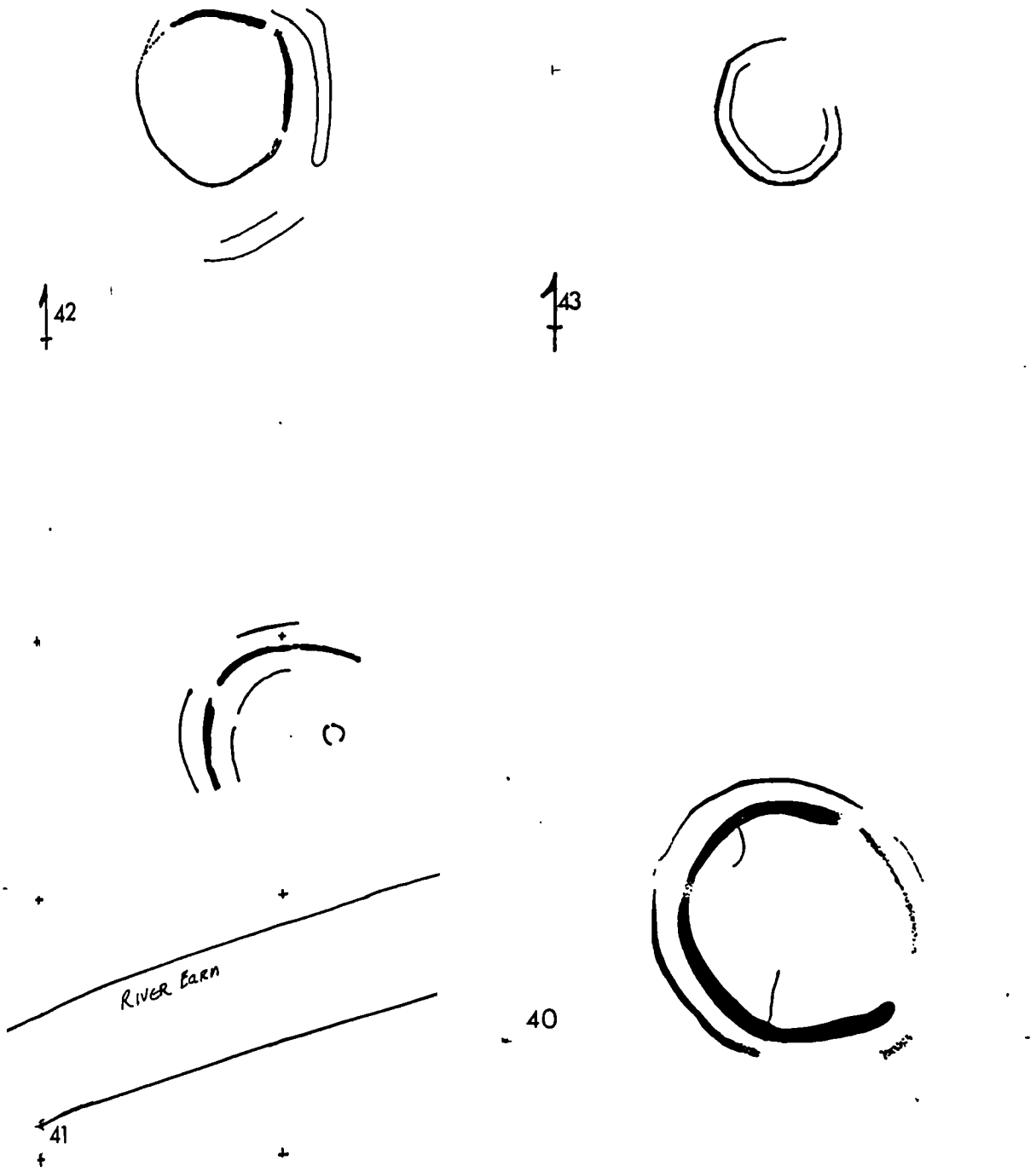
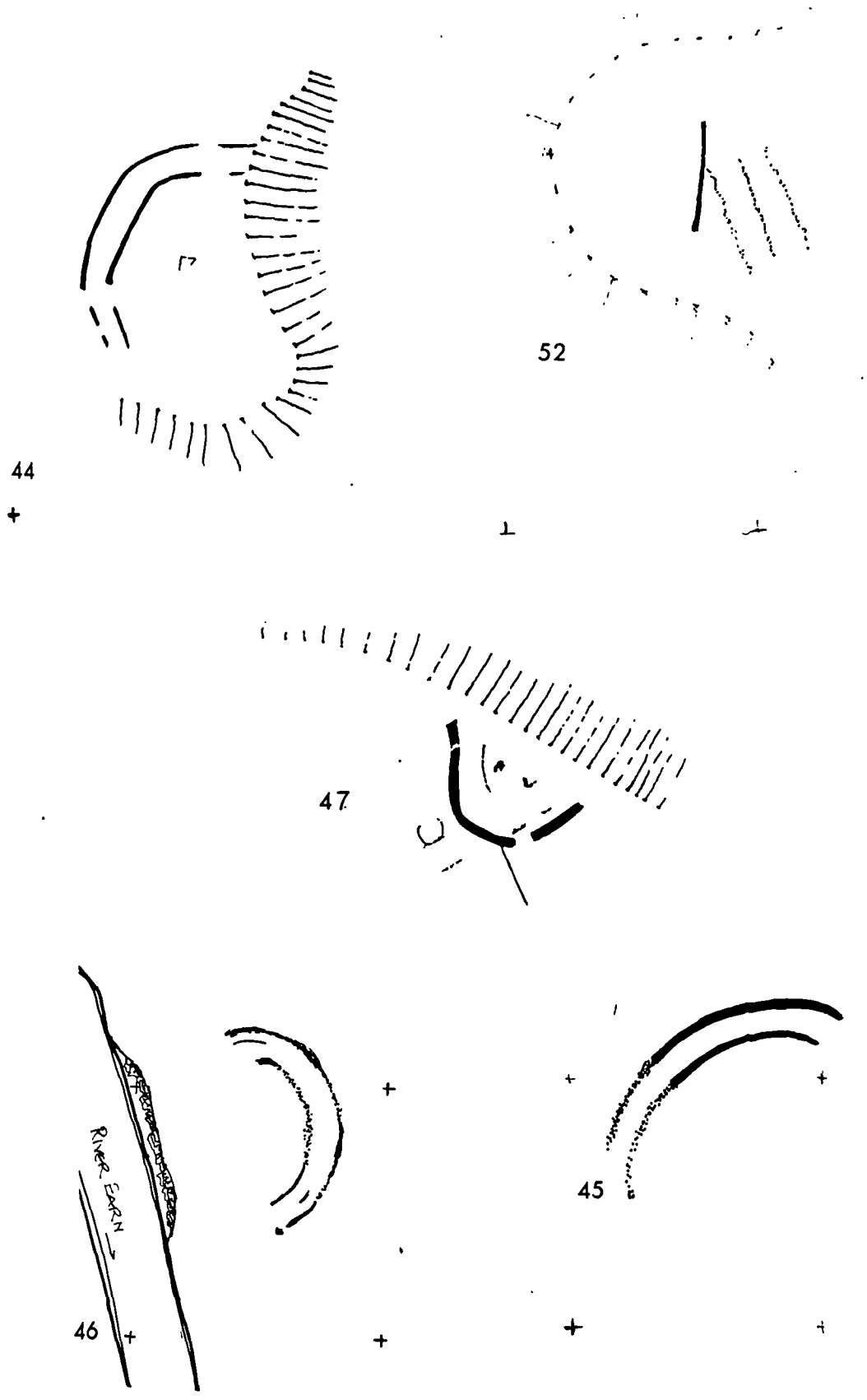
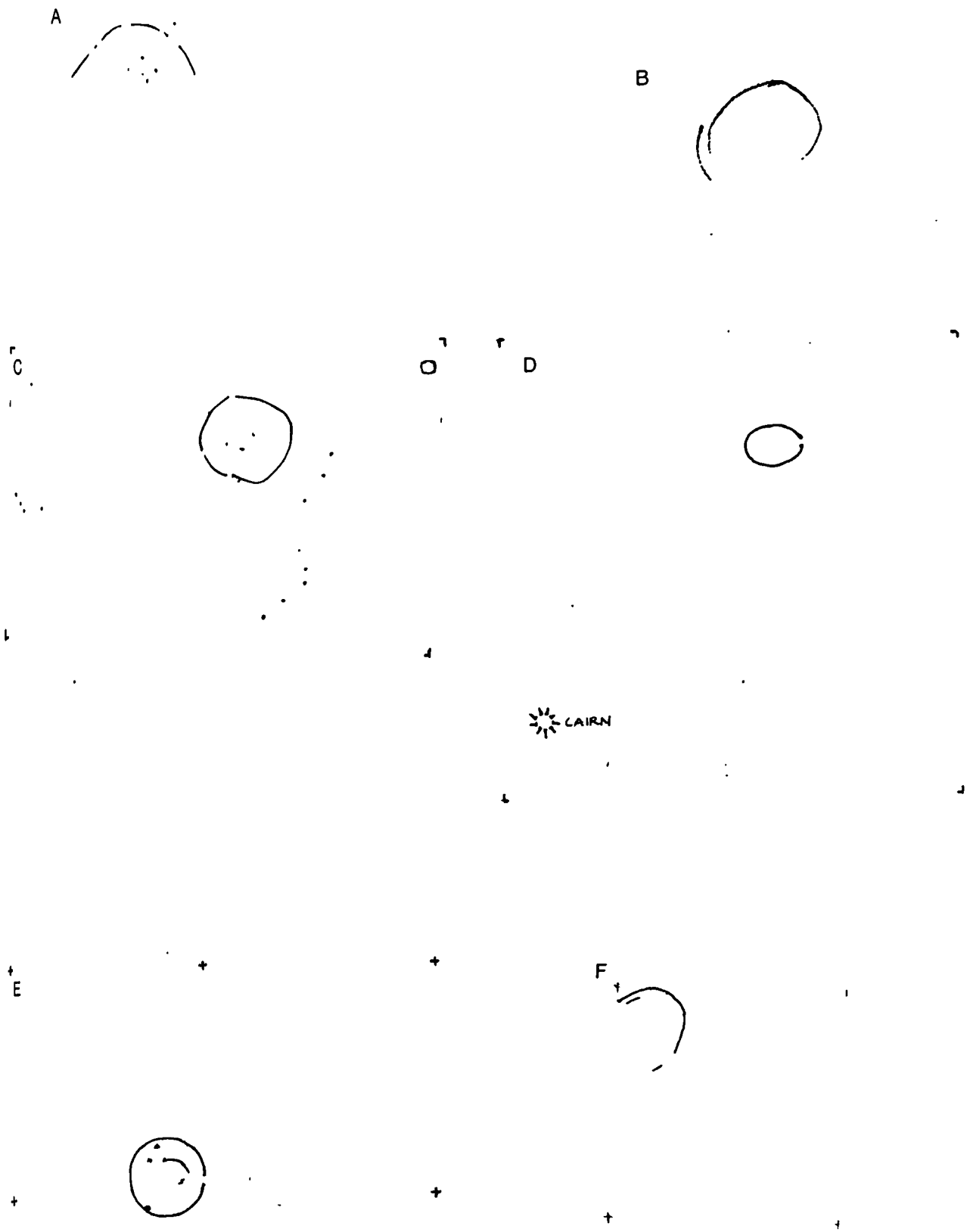


3.23 Comparative Plans of Class I and Class I+ AP Forts at 1:2500.
42 Williamston, 43 Cloan, 41 South Mains, Innerpeffray, 40 Moneydie.



3.24 Comparative Plans of Class II AP Forts at 1:2500. 44 Waulkmill, 52 Inverdunning House, 47 Green of Invermay, 46 Craigshot, 45 Thorn.

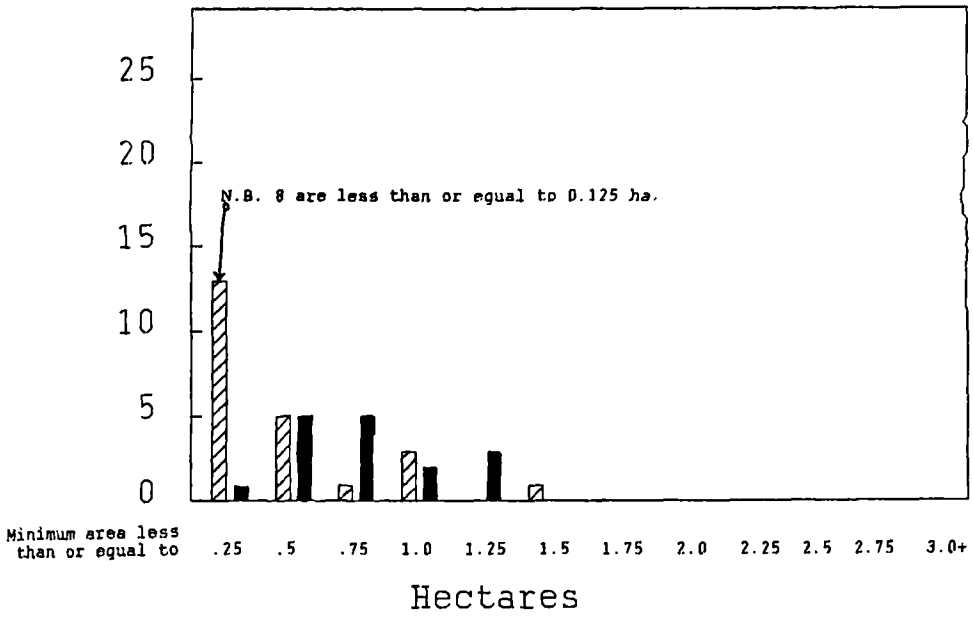
3.25 Comparative Plans of Class III AP Forts at 1:2500. 48 Dun Knock, Dunning, 51 Pitcairn Green, 50 Hilton House, 49 Broxy Kennels with associated enclosures.



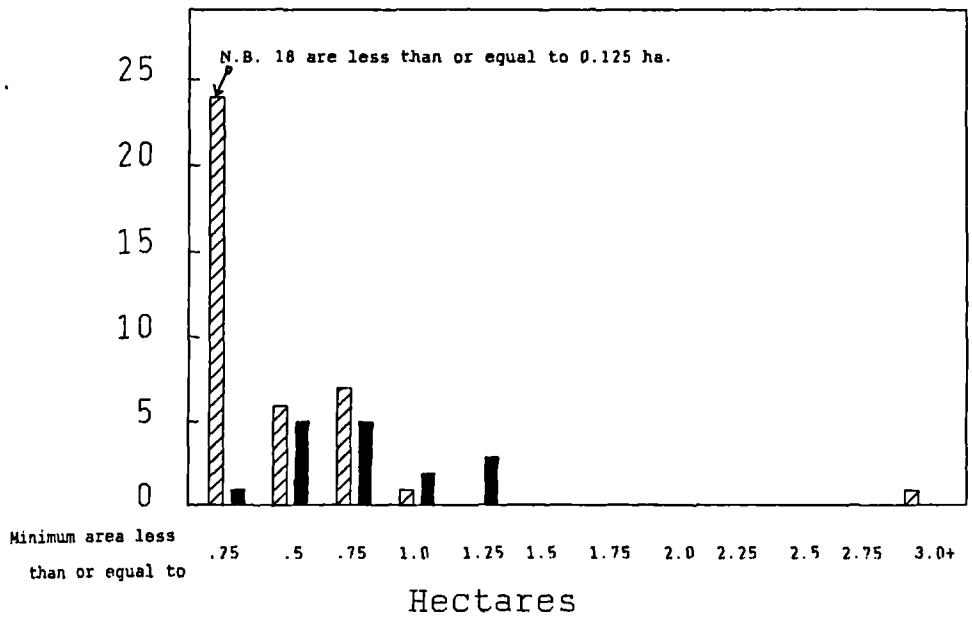
3.26 Comparative Plans of AP Palisaded Enclosures at 1:2500. A. Kildinney NO 063177, B. Findony NO 018141, C. Powbridge NO 054245, D. Cultybaggan NN 769203, E. Lochlane NN835212, F. East Lochlane NN840213.

3.27 Comparative Plans of AP Palisaded Enclosures at 1:2500, continued. A. Dalpatrick Ford NN 889183, B. Peterhead and Loaninghead NN 924097, C. Wester Keltie NO 006140, D. Gannochan NO 858100 (scale approximate).

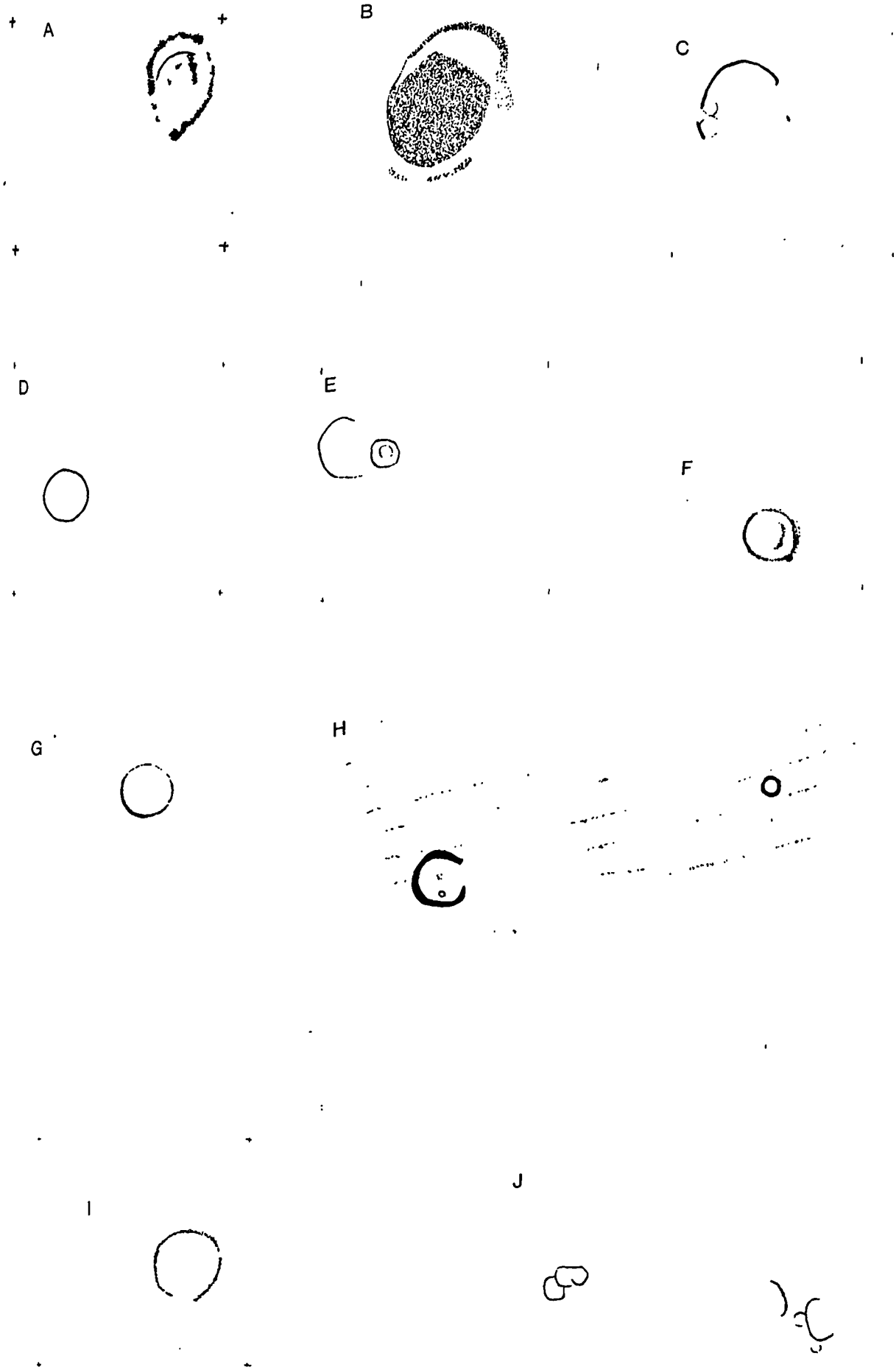
3.28 Comparative Plans of AP Palisaded Enclosures at 1:2500, continued. A. Easter Cultmalundie NO 041227, B. Broich NN 868203, C. Huntingtower Quarry NO 079247, D. Drummondernoch NN 7998210.



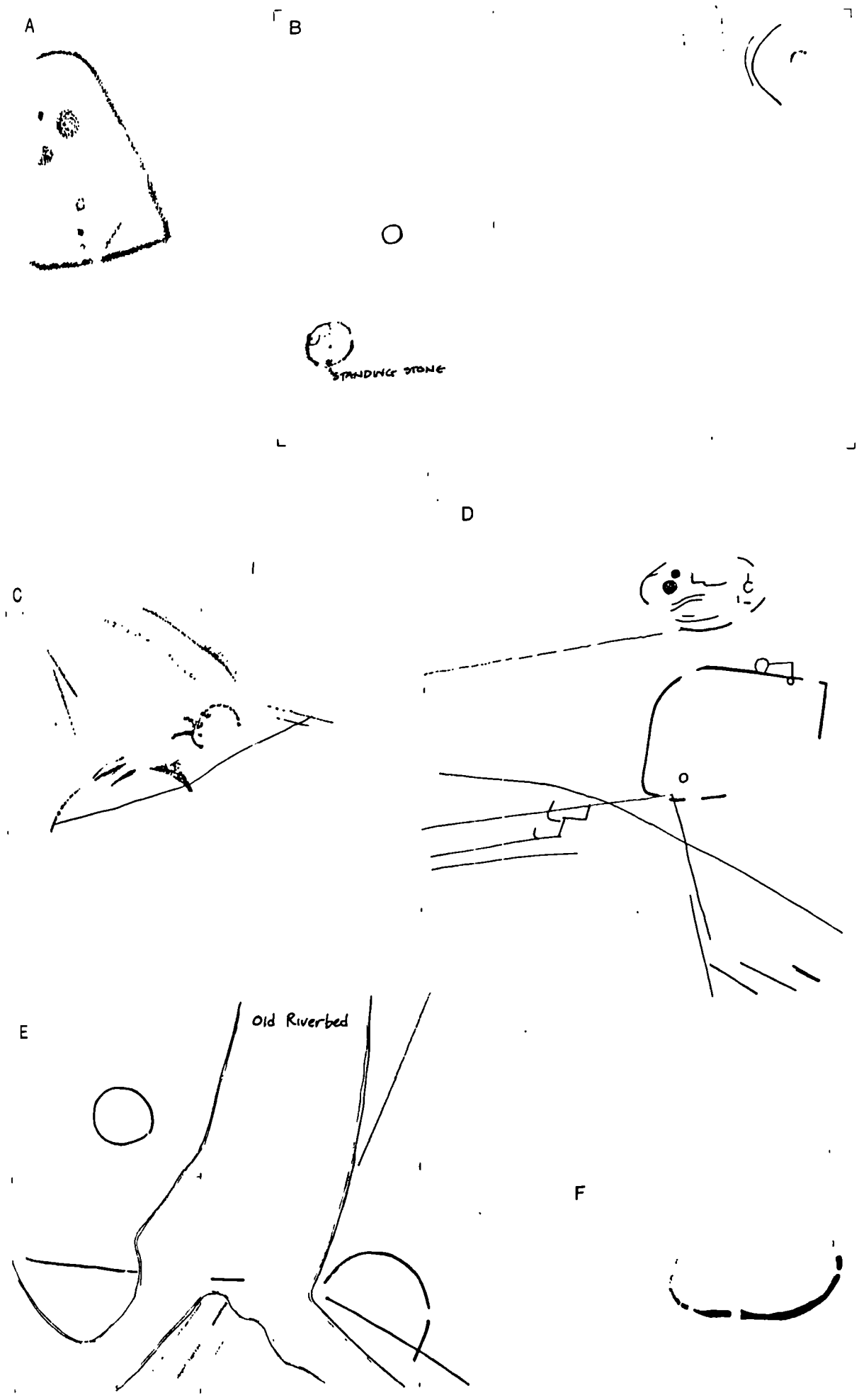
3.29 Areas of Palisades (t=23, striped) and areas of AP Forts (t=16, solid) compared.



3.30 Areas of Curvilinear Ditched Enclosures (t=35, striped) and areas of AP Forts (t=16, solid) compared

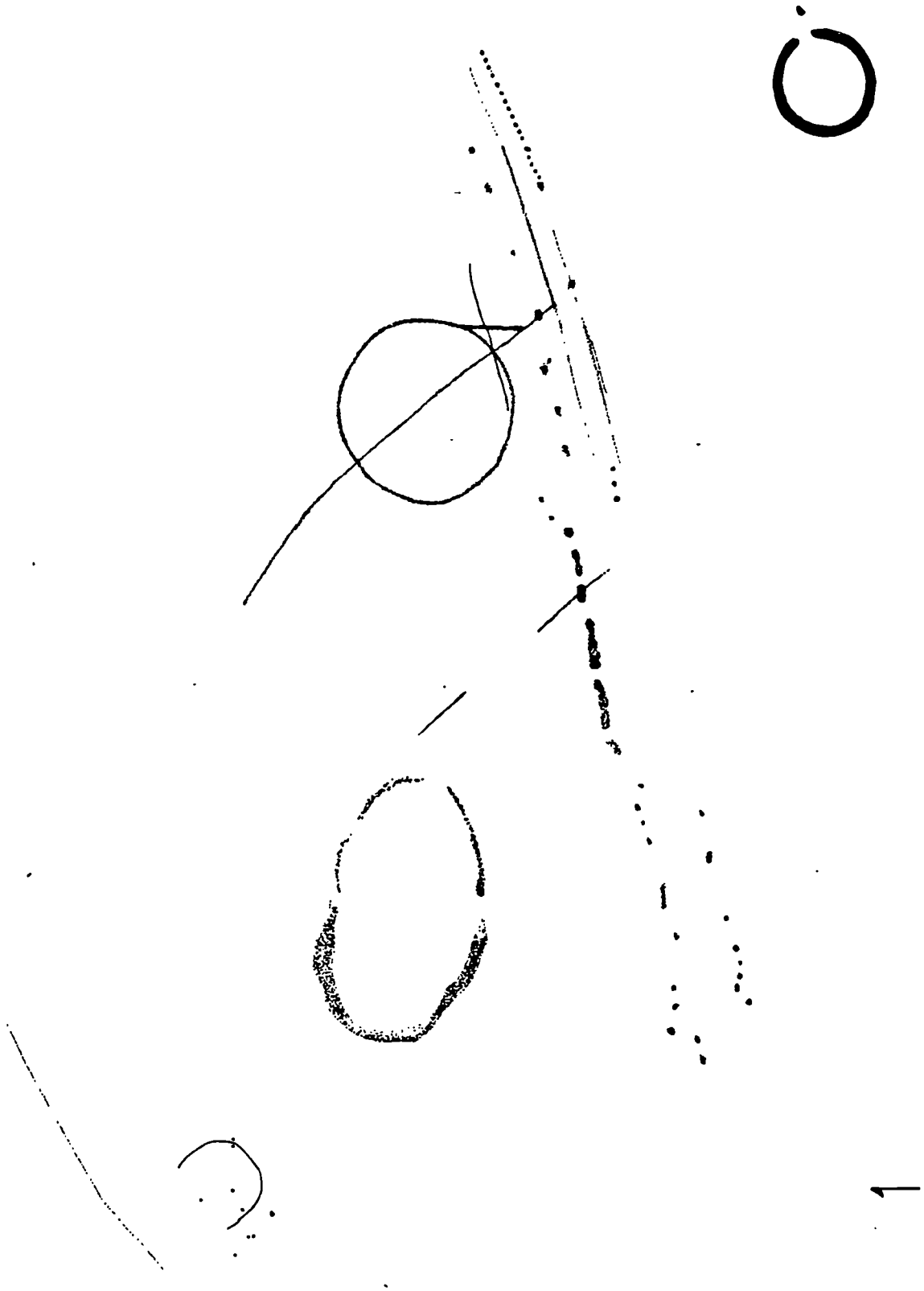


3.31 Comparative Plans of AP Curvilinear Ditched Enclosures at 1:2500.
A. Westerton 2 NN 875145, B. Haugh of Aberuthven 2 NN984169, C. Mains of Duncrub NO 004155, D. Kinvaid NO 069300, E. Cairnton NO 070275, F. Hilton of Gask 1 NN 989178, G. Hilton of Gask 2 NN990176, H. Inverdunning House NO 026160, I. Southton of Blackruthven NO 071238, J. Mugdrum 1a NO 215181.

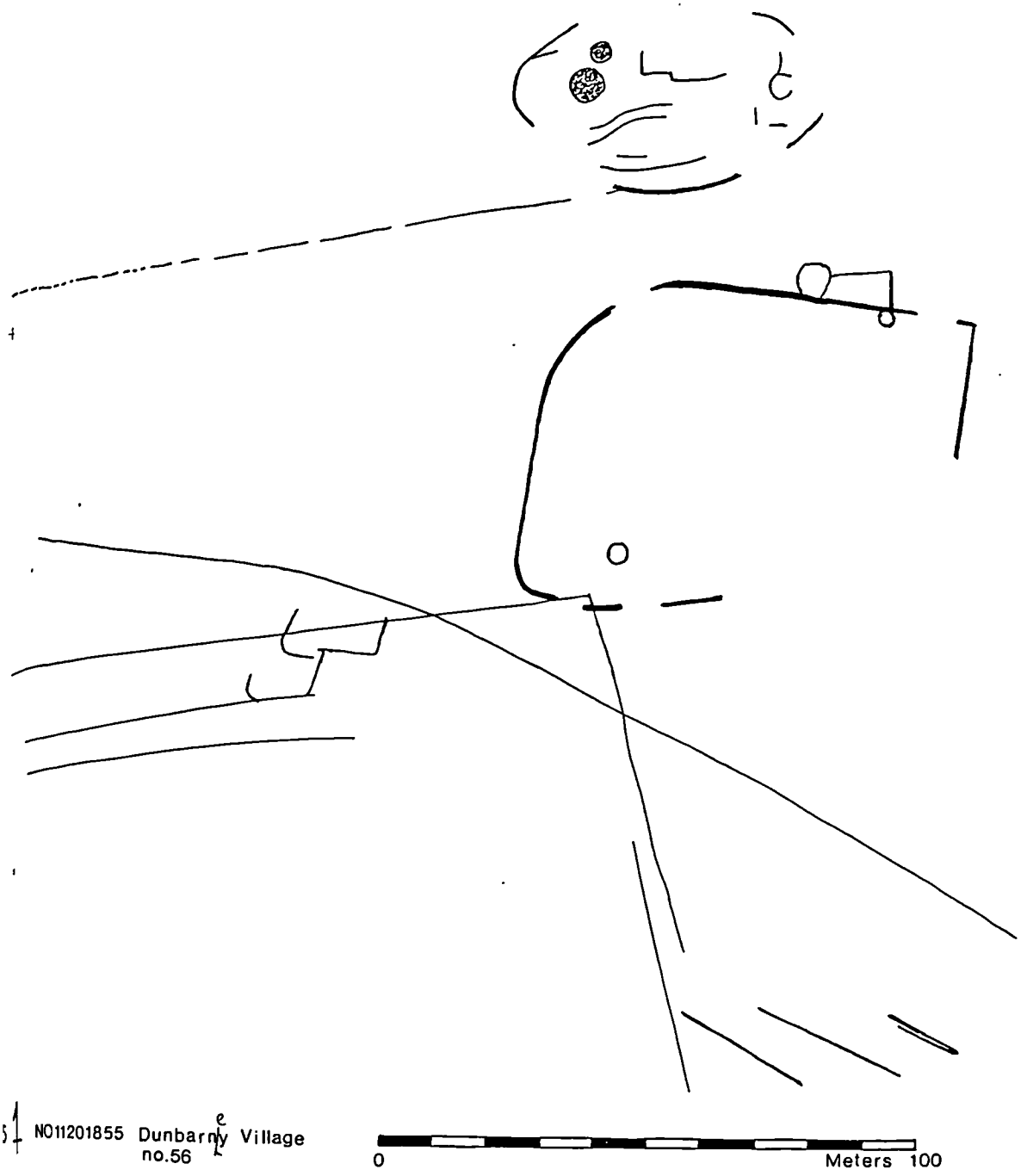


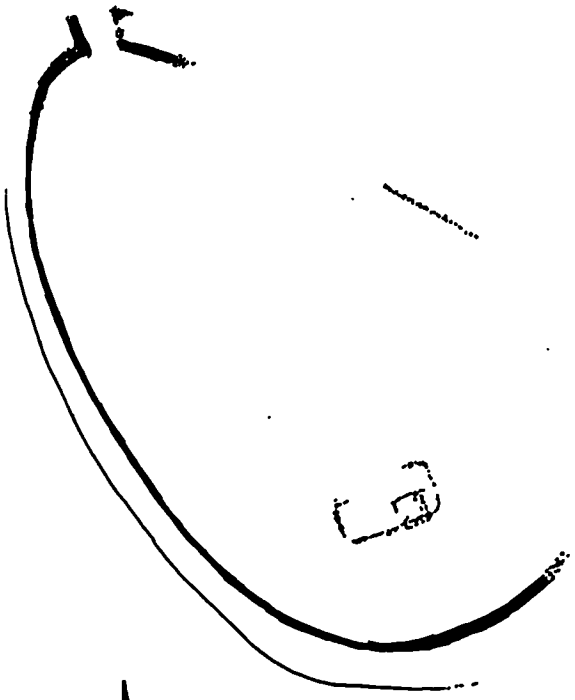
3.32 Comparative Plans of AP Curvilinear Ditched Enclosures at 1:2500, continued. A. Forgandenny NO 088185, B. Belhie 1 & 2 NN 977164, C. Tulloch NO 092252, D. Dunbarney NO 113187, E. Luncarty 2 NO 098304, F. Millhaugh NO 011141.

3.33 Comparative Plans of AP Curvilinear Ditched Enclosures at 1:2500, continued. A. Moncreiffe House NO 131194, B. Dornock 2 NN881190, C. Grassy Walls 2 NO 107281, D. Loanleven NO 058252.



3.34 Comparative Plans of AP Curvilinear Ditched Enclosures at 1:2500, continued. Huntingtower Complex NO 079251.

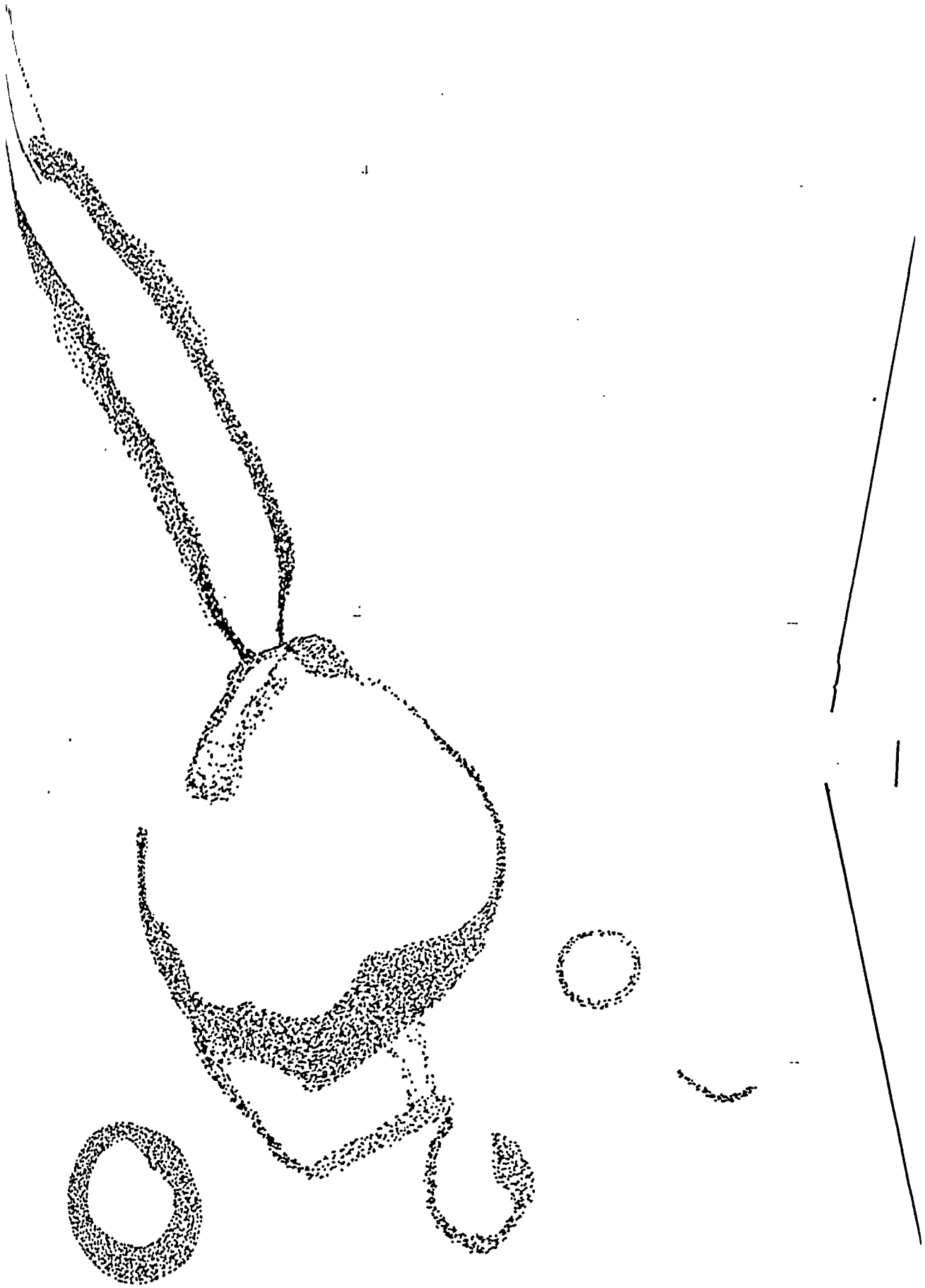

NO11201855 Dunbarney Village
no.56
0
Meters 100



no. 54 NN893188

no. 57 NO 088185

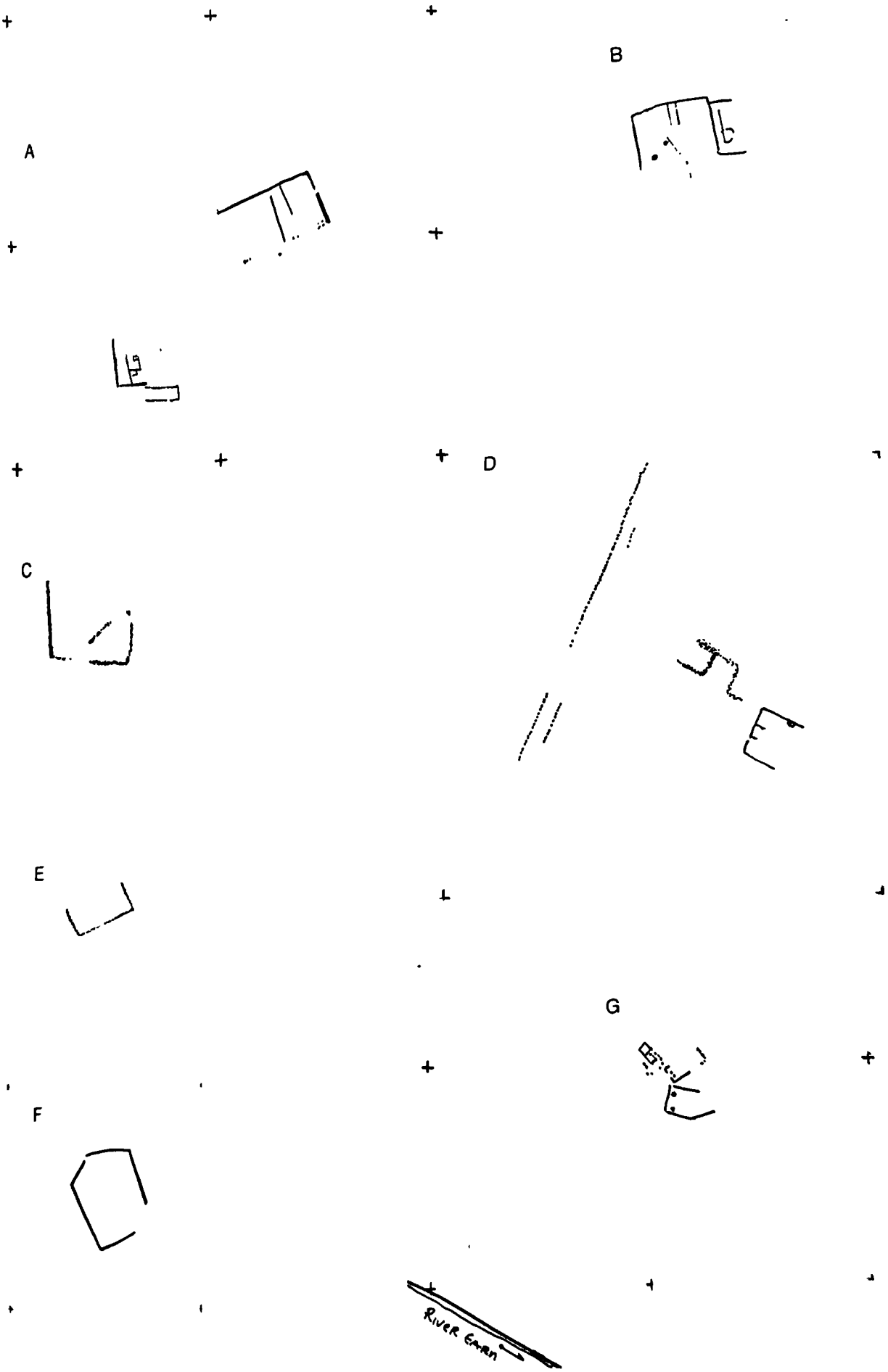
3.36 Plans of Dalpatrick Enclosure (no. 54, above) at approximately 1:1000 and Forgandenny (no. 57, below) at 1:1000.



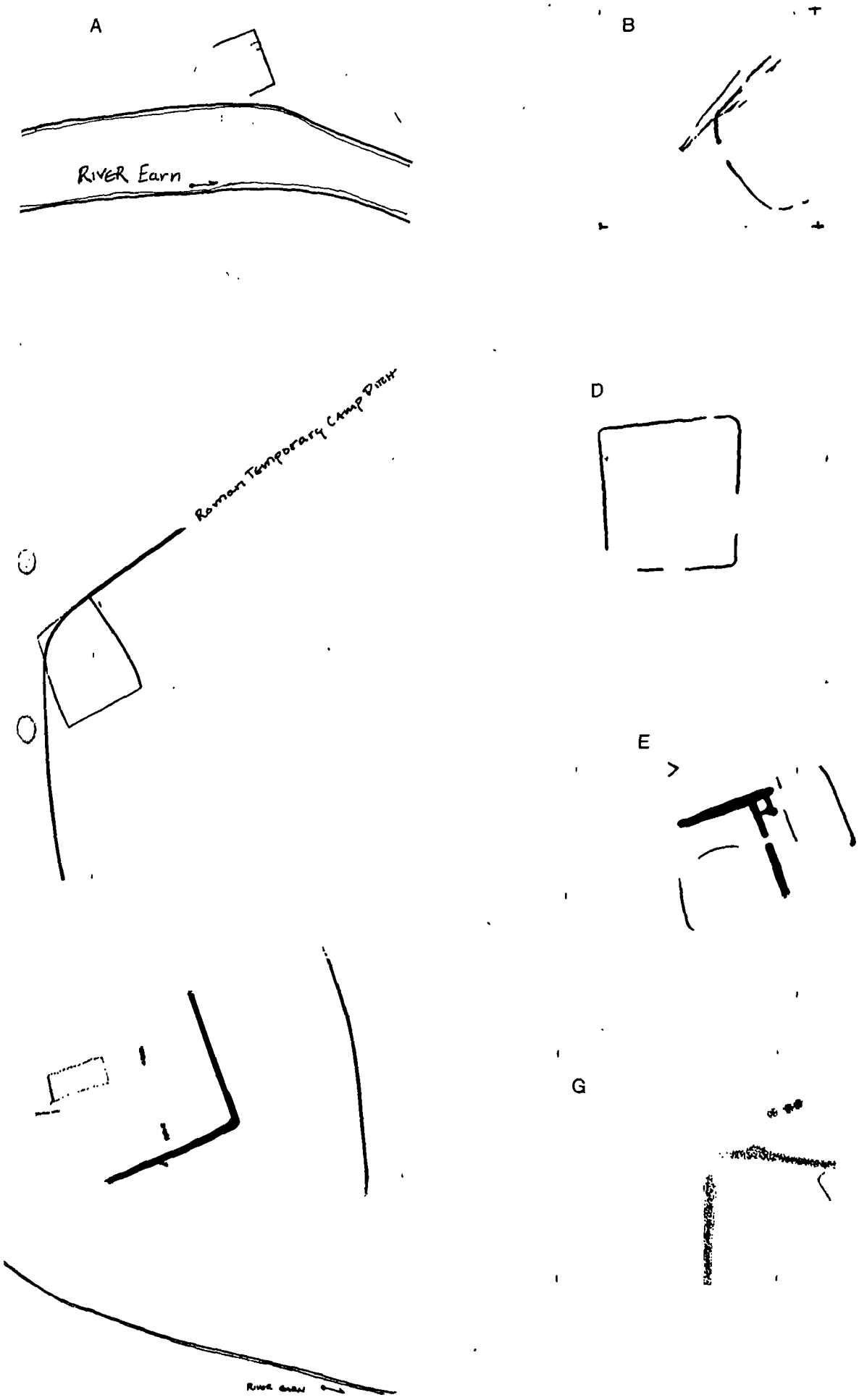
3.37

NO10602790 Grassy Walls 2
no. 55

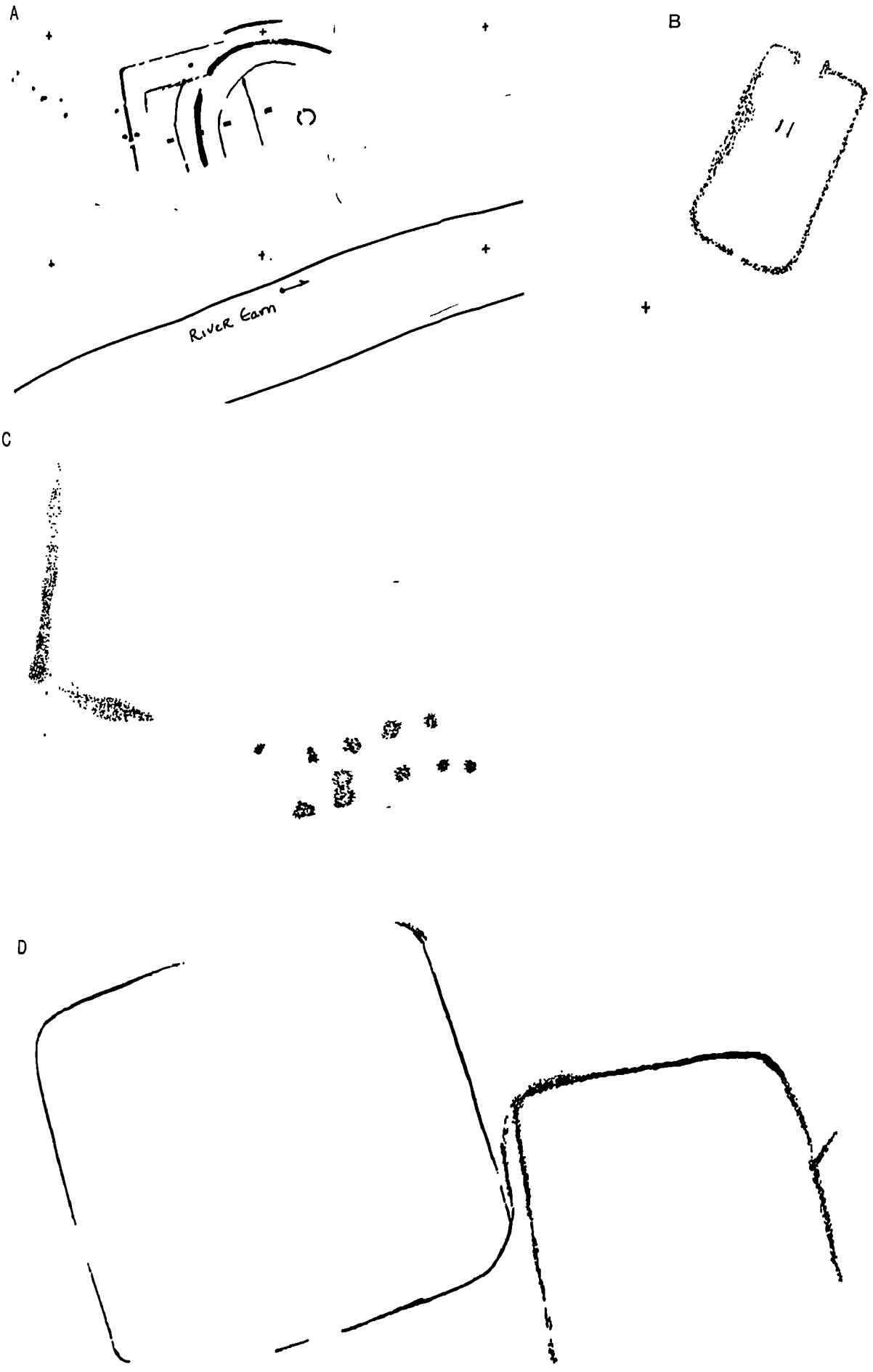
0 Meters 100



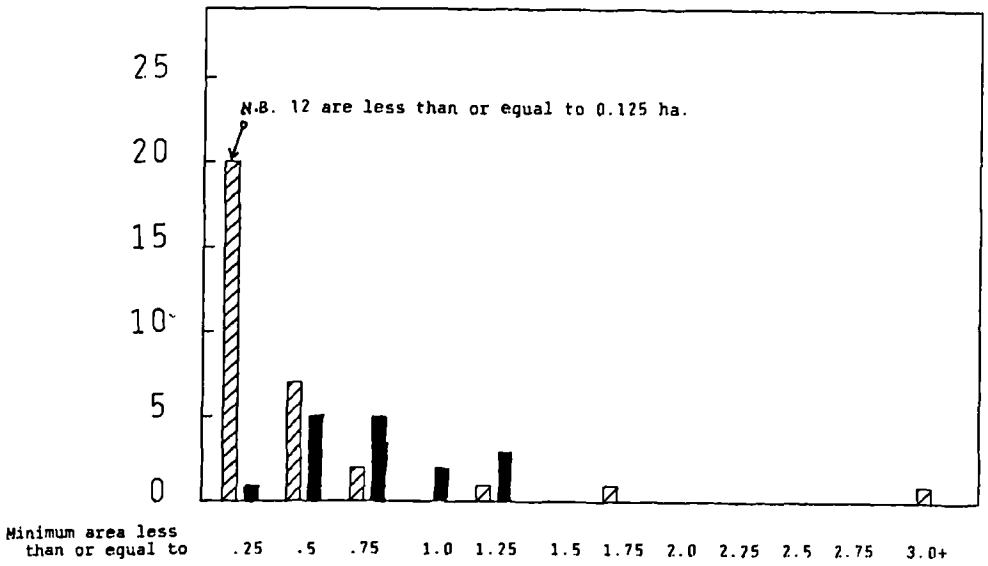
3.38 Comparative Plans of AP Rectilinear Enclosures at 1:2500.
A. Lennoch NN 805218, B. Mugdrum 1b NO 217181, C. Duncrub NO 009146, D. Cuiltiburn NN 882177, E. Baldinnes NO 022166, F. Ballendrick NO 118177, G. Craigmill Cottage NN 919714.



3.39 Comparative Plans of AP Rectilinear Enclosures at 1:2500, continued. A. Dornock Riverside NN 882188, B. Pittentian NN 876205, C. Carey NO 170166, D. Tibbermore NO 074226, E. Kirklands of Damside NN 904147, F. Gascon Hall NN 987174, G. Peel NO 055235.

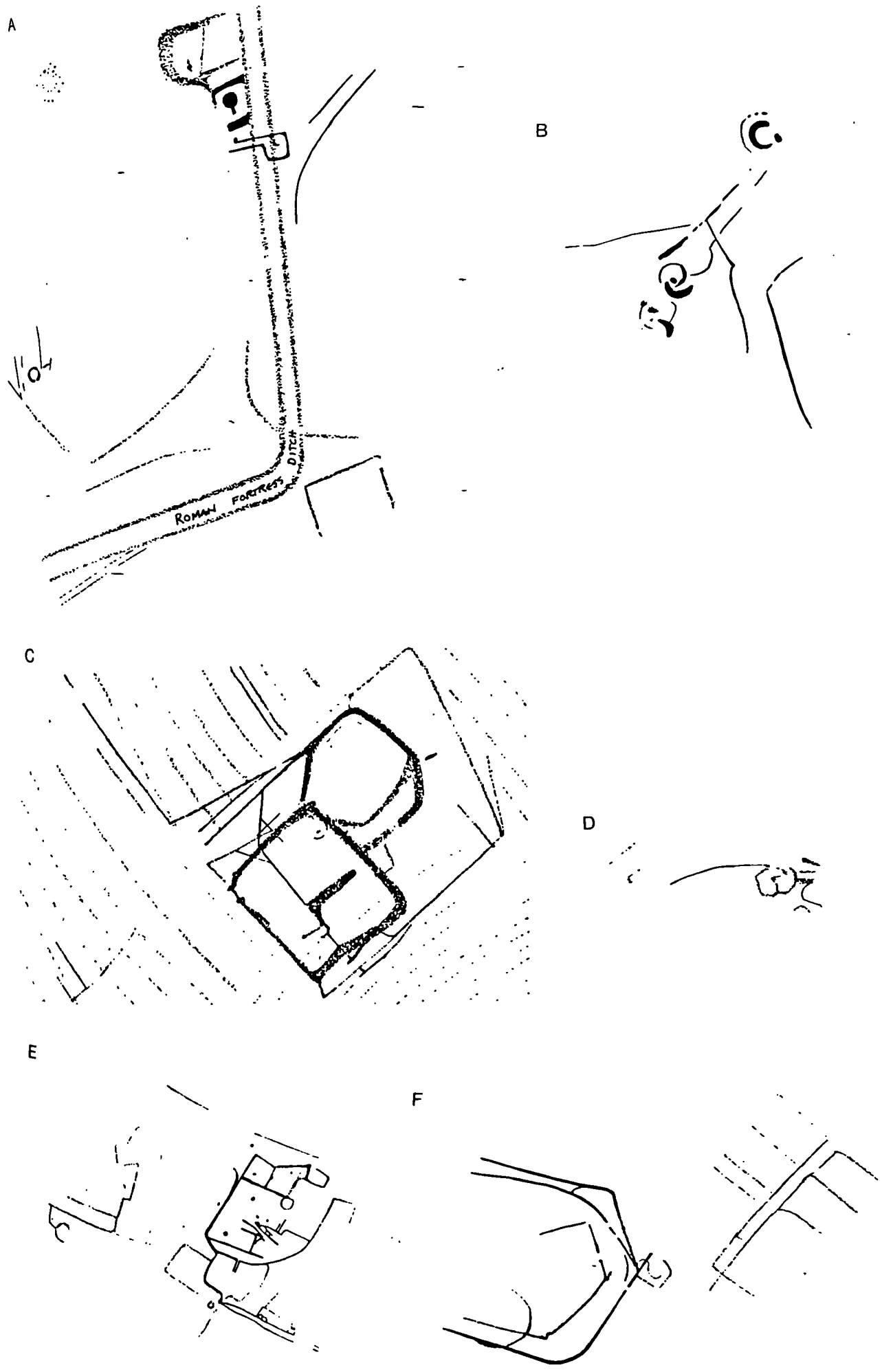


3.40 Comparative Plans of AP Rectilinear Enclosures at 1:2500, continued.
A. South Mains, Innerpeffray NN 907179, B. Aldonie NN 855135,
C. Powside NO 052249, D. Upper Cairnie 1 & 2 NO 037192.

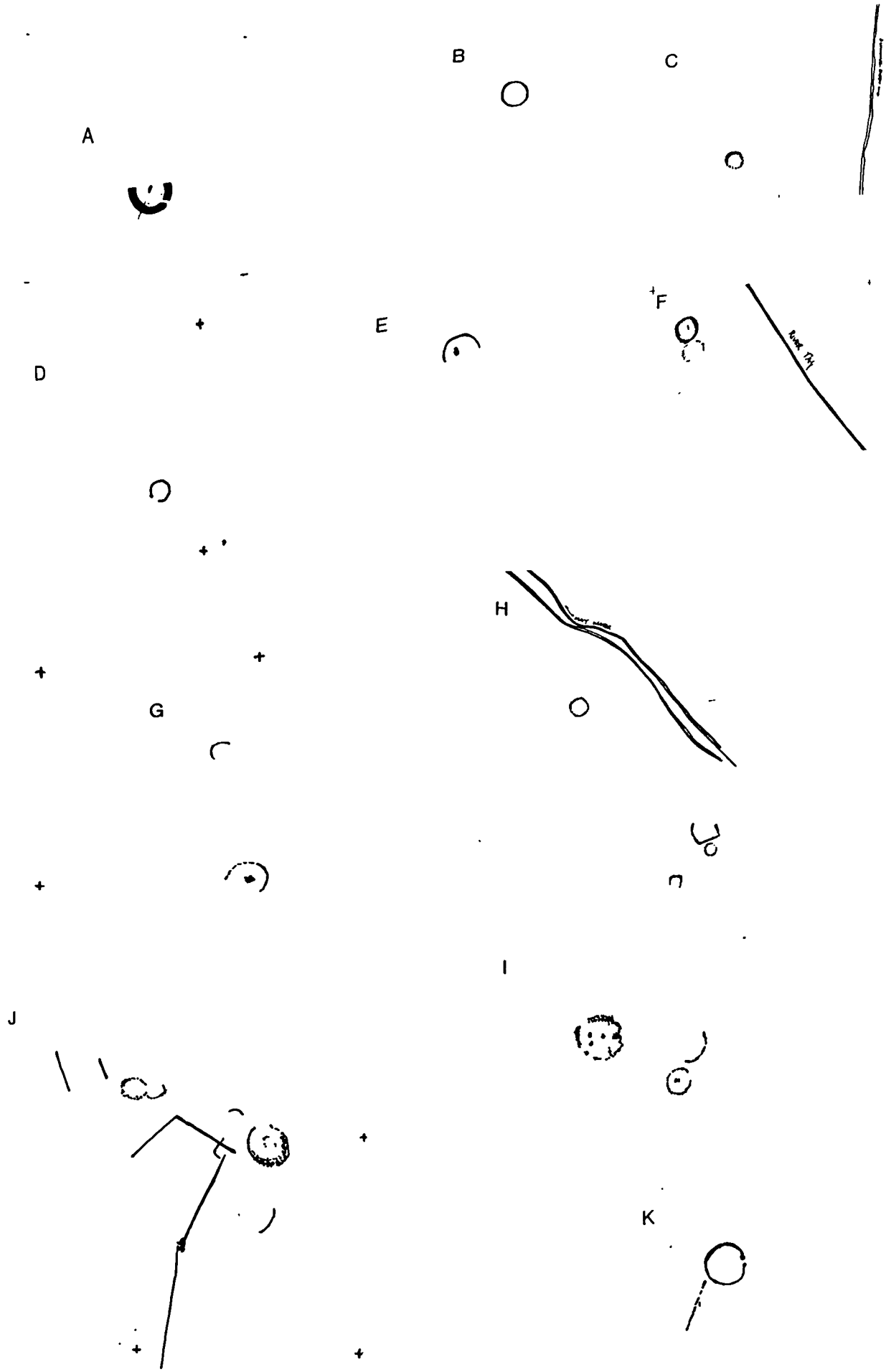


3.41 Areas of Rectilinear Ditched Enclosures (t=29, striped) and areas of AP Forts (t=16, solid) compared.

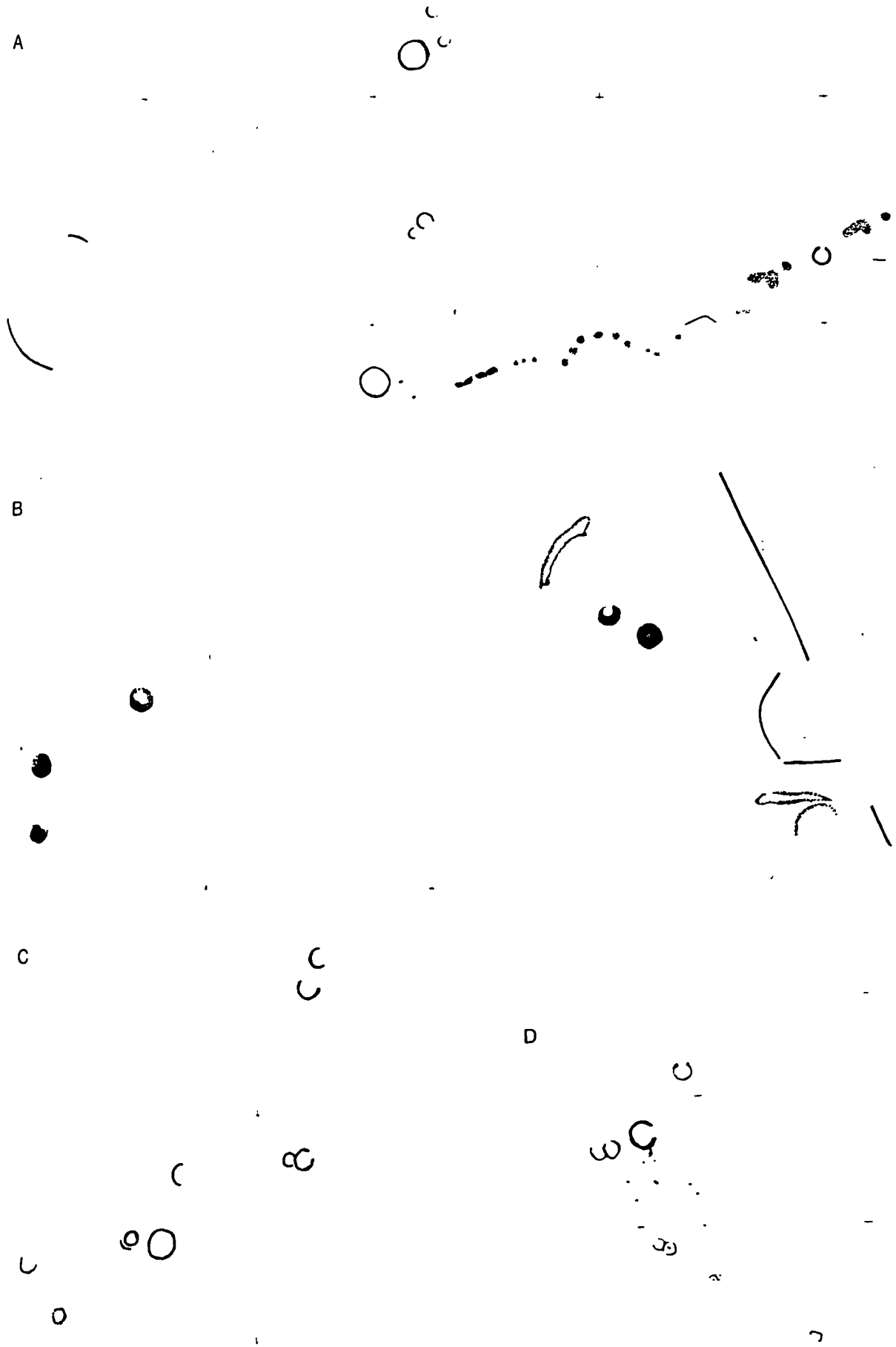
3.42 Complex AP Enclosures, Group I Open Scatters at 1:2500.
A. Kinnon Park NO 038247, B. Mailingknowe NN 993152,
C. Masterfield NO 010171, D. Aberargie 1 & 2 NO 168157.



3.43 Comparative Plans of Complex Enclosures at 1:2500. Group 2 Compact type. A. Carpow/Gilles Burn NO 211179, B. Grassy Walls 1 NO 104277, C. Balgonie NO 193175, D. Drumford NN 915940, E. Middle Strathy NN 994 159, F. Luncarty Home Farm NO 097291.

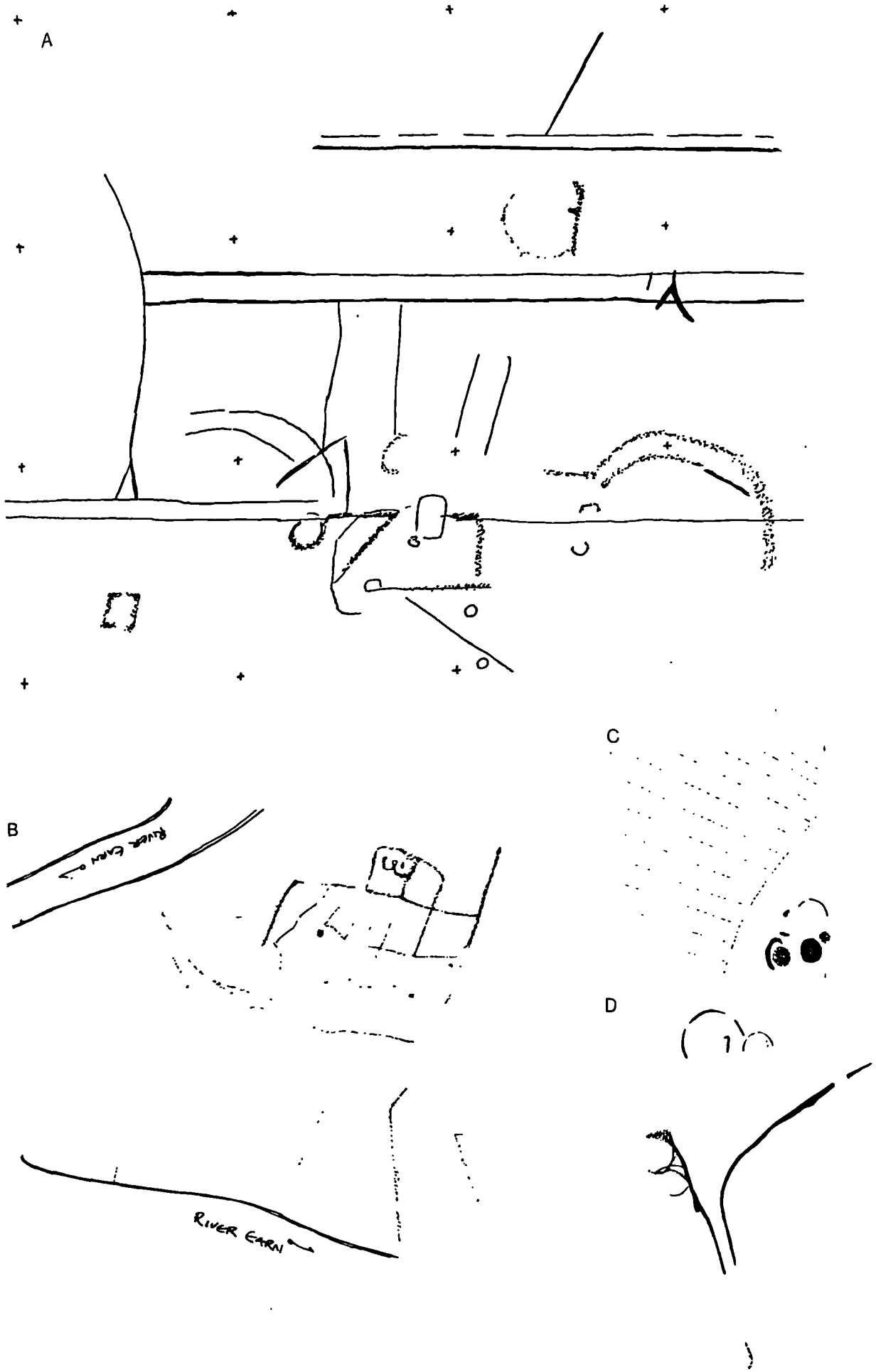


3.44 Comparative Plans of Ring-Ditches at 1:2500. Isolated and Small Groups. A. Newton NO 088252, B. Mains of Duncrub NO 006184, C. Drum of Garvock NO 036168, D. Dalginross NN 774210, E. Ferryfield of Carpow NO 196181, F. Bertha NO 098269, G. Whitehill NN 917164, H. Forteviot Village NO 049175, I. The Four Acre NO 041190, J. Calfward NN 934156, K. Millhill NN 929097.

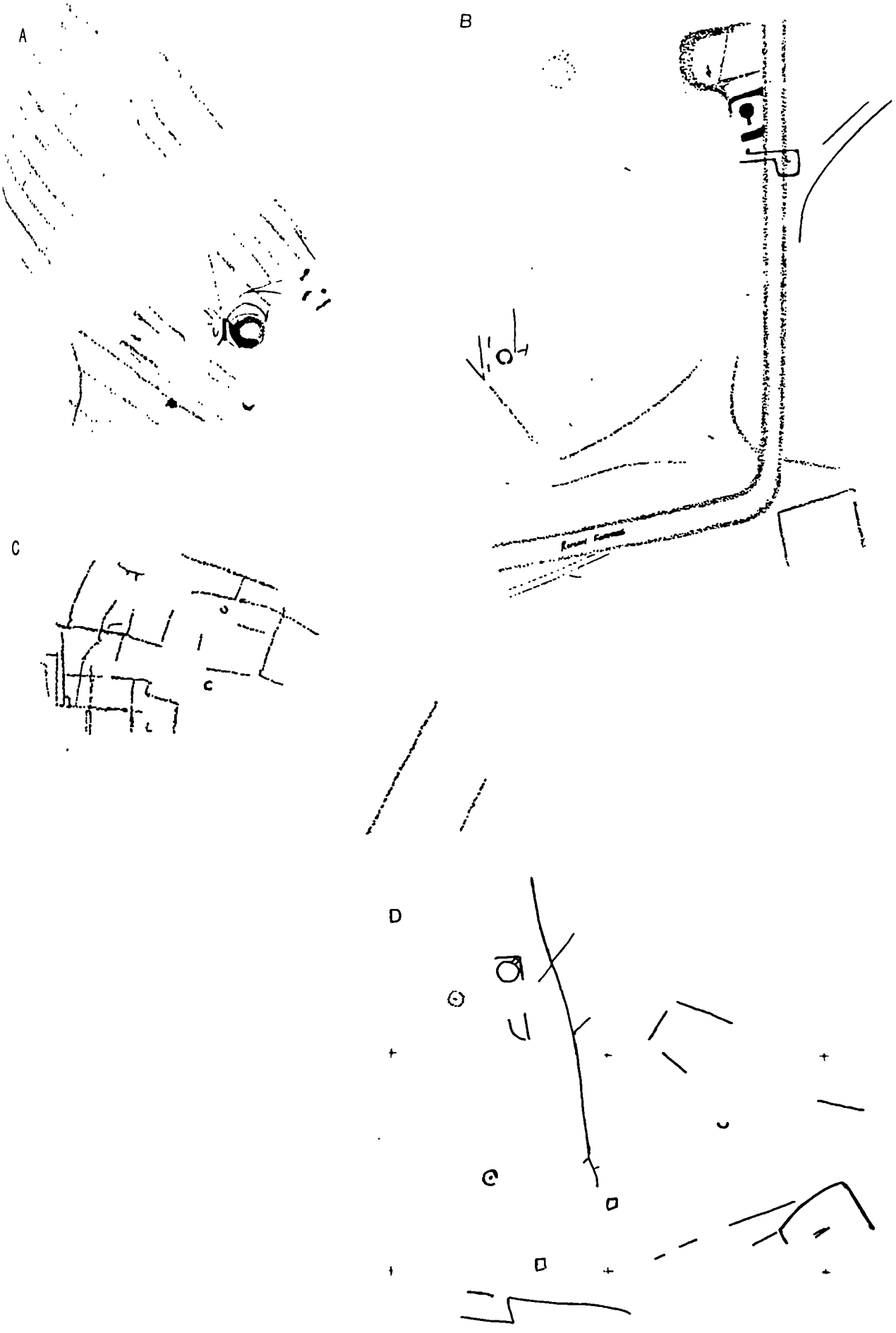


3.45 Comparative Plans of Ring-Ditches at 1:2500. Unenclosed Villages.
A. Blackruthven Cottages NO 061241, B. Leadketty 1 NO 010152,
C. South Strathy NN 988161, D. Marlefield 2 NO 059245.

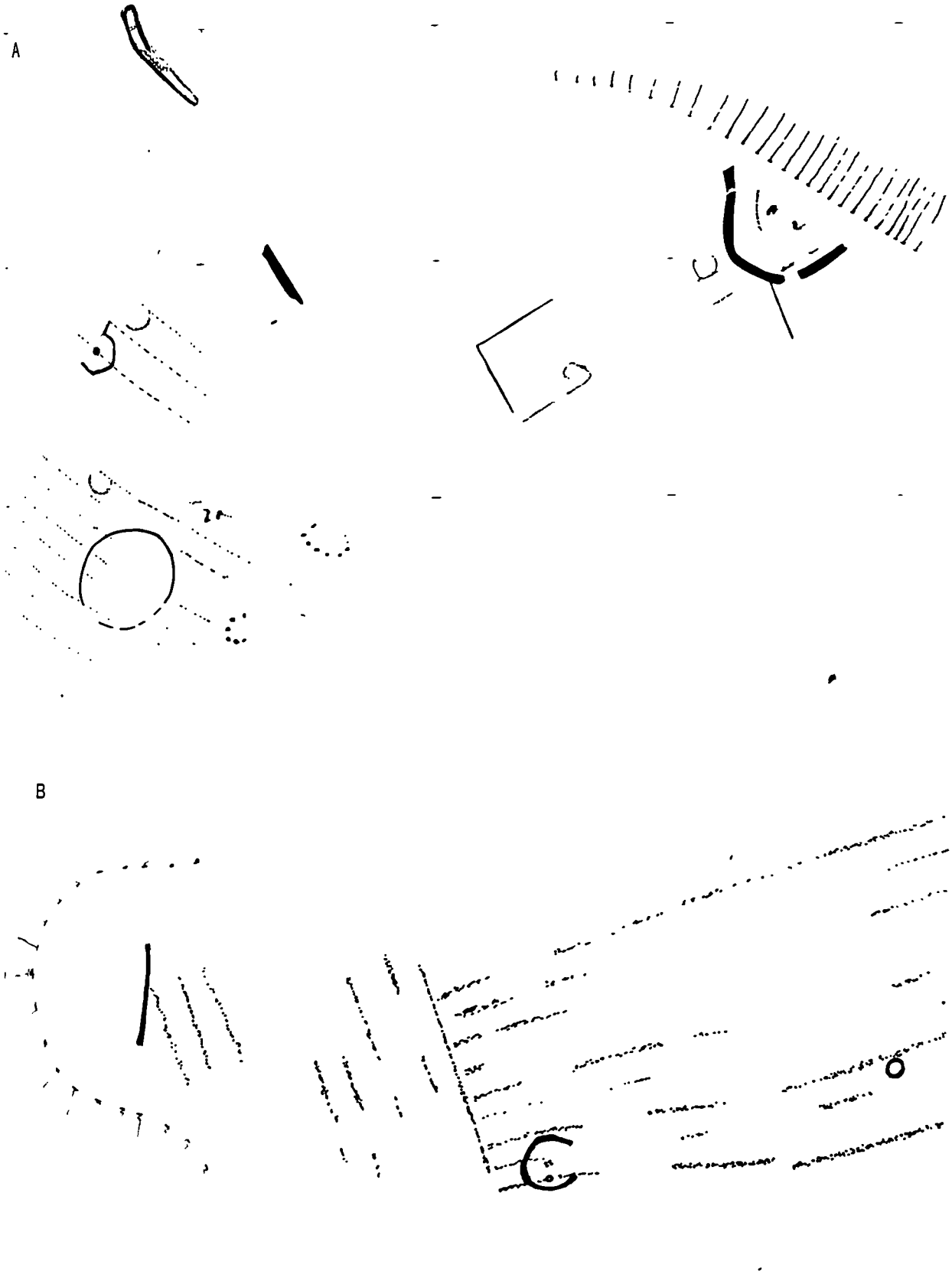
3.46 Comparative Plans of Souterrains at 1:2500. A. Newton of Condie NO 075184, B. Clunie Field NO 220179, C. Eastmill, Ruthven NN 959126, D. Parkhead NN 900178, E. Strageath Cottage NN 888182, F. Mugdrum 2 NO 221182, G. Mains of Strageath NN 901183, H. South Arditie NO 013293, I. Easter Dowald. NN 894226.



3.47 Comparative Plans of Field Systems and Cultivation Remains at 1:2500. A. Kinkell Bridge NN 930164, B. South Mains, Innerpeffray NN 902180, C. Easter Clunie NO 218177, D. Haugh of Aberuthven 1 NN 981 171.

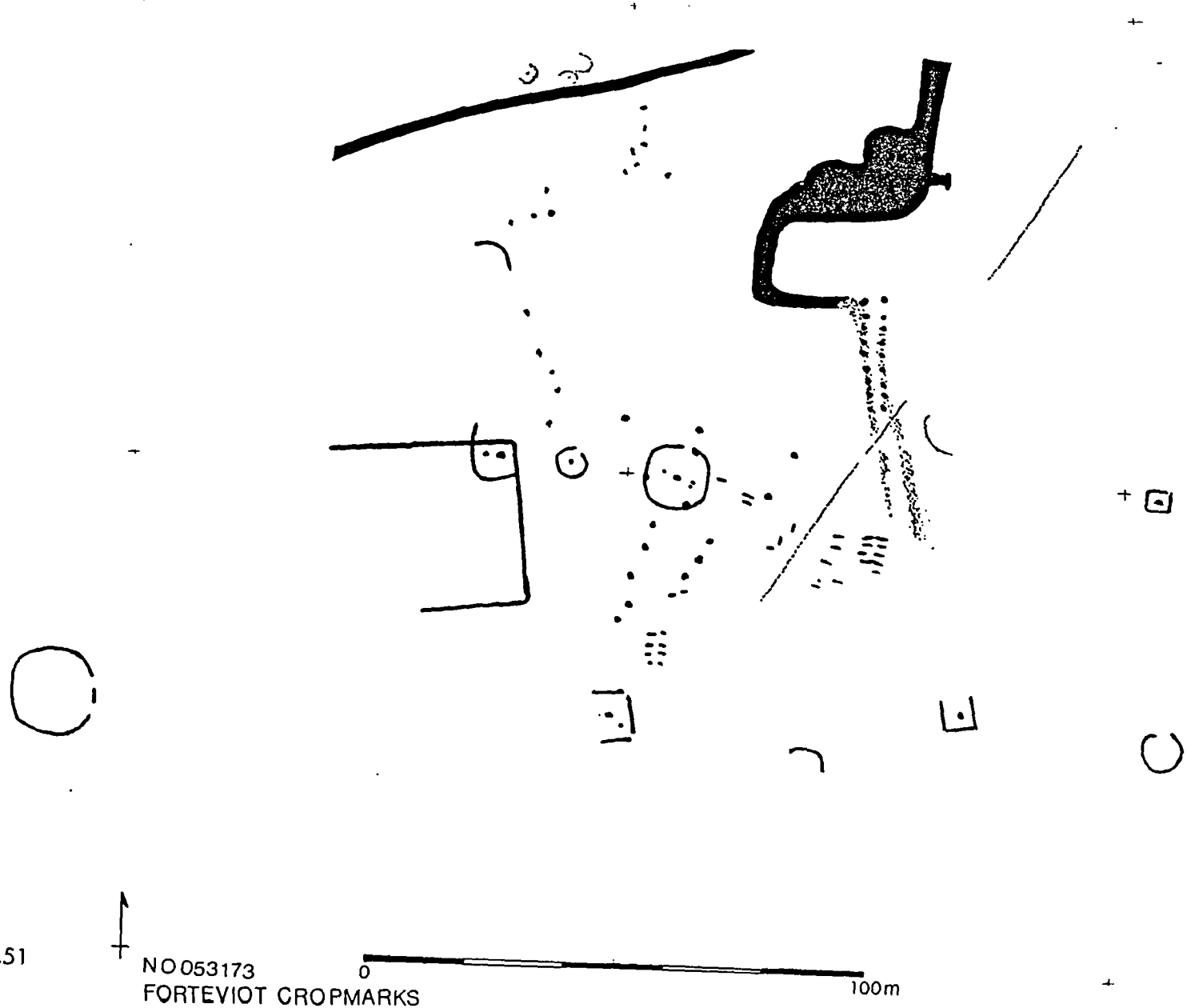


3.48 Comparative Plans of Field Systems and Cultivation Remains at 1:2500, continued. A. Newton of Condie NO 072182, B. Carpow/Gilles Burn NO 011179, C. Strageath NN 895178, D. Dalpatrick Complex NN 889189.

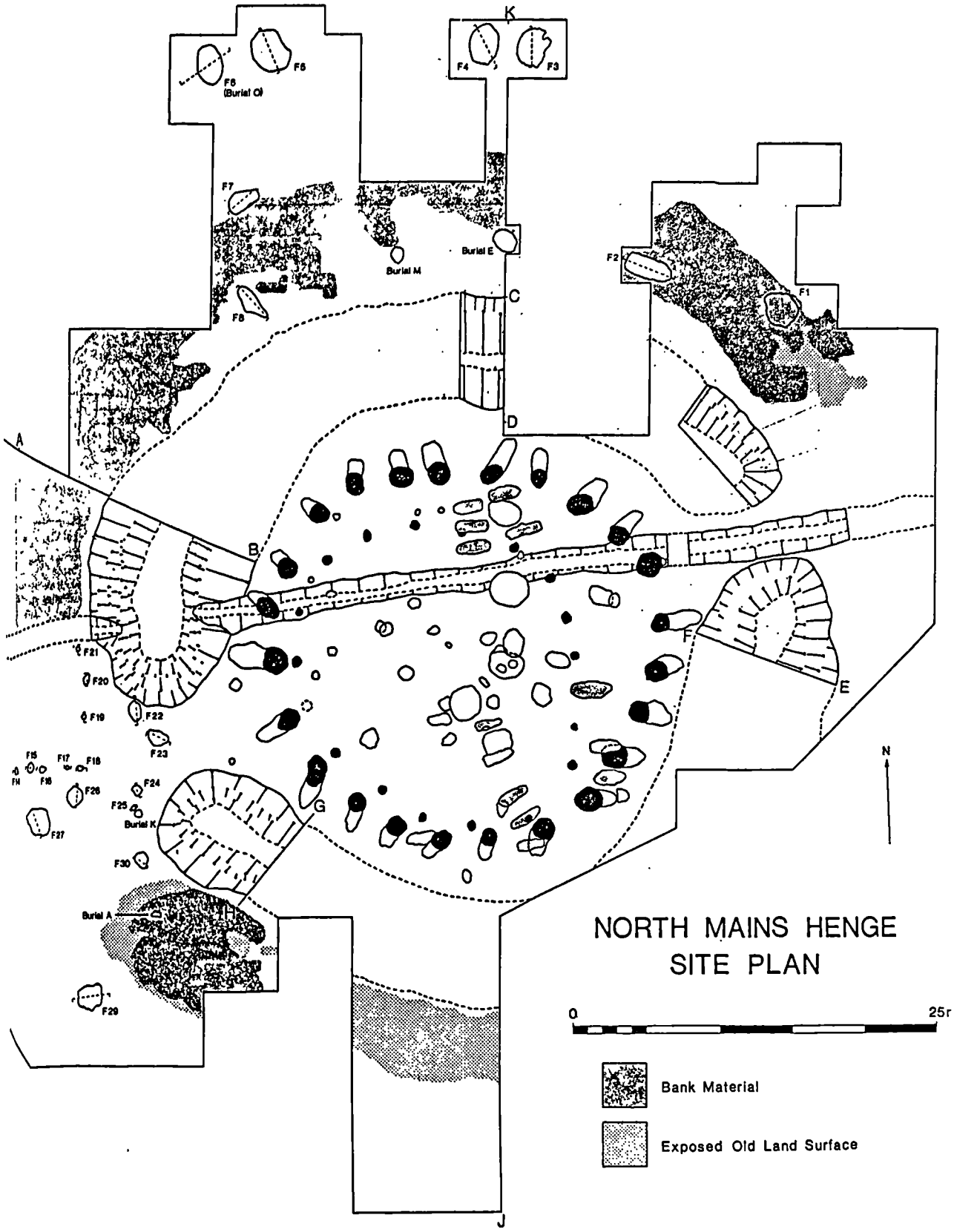


3.49 Comparative Plans of Field Systems and Cultivation Remains at 1:2500, continued. A. Gallows Knowe NO 050161 & Green of Invermay NO 052162, B. Inverdunning NO 026160.

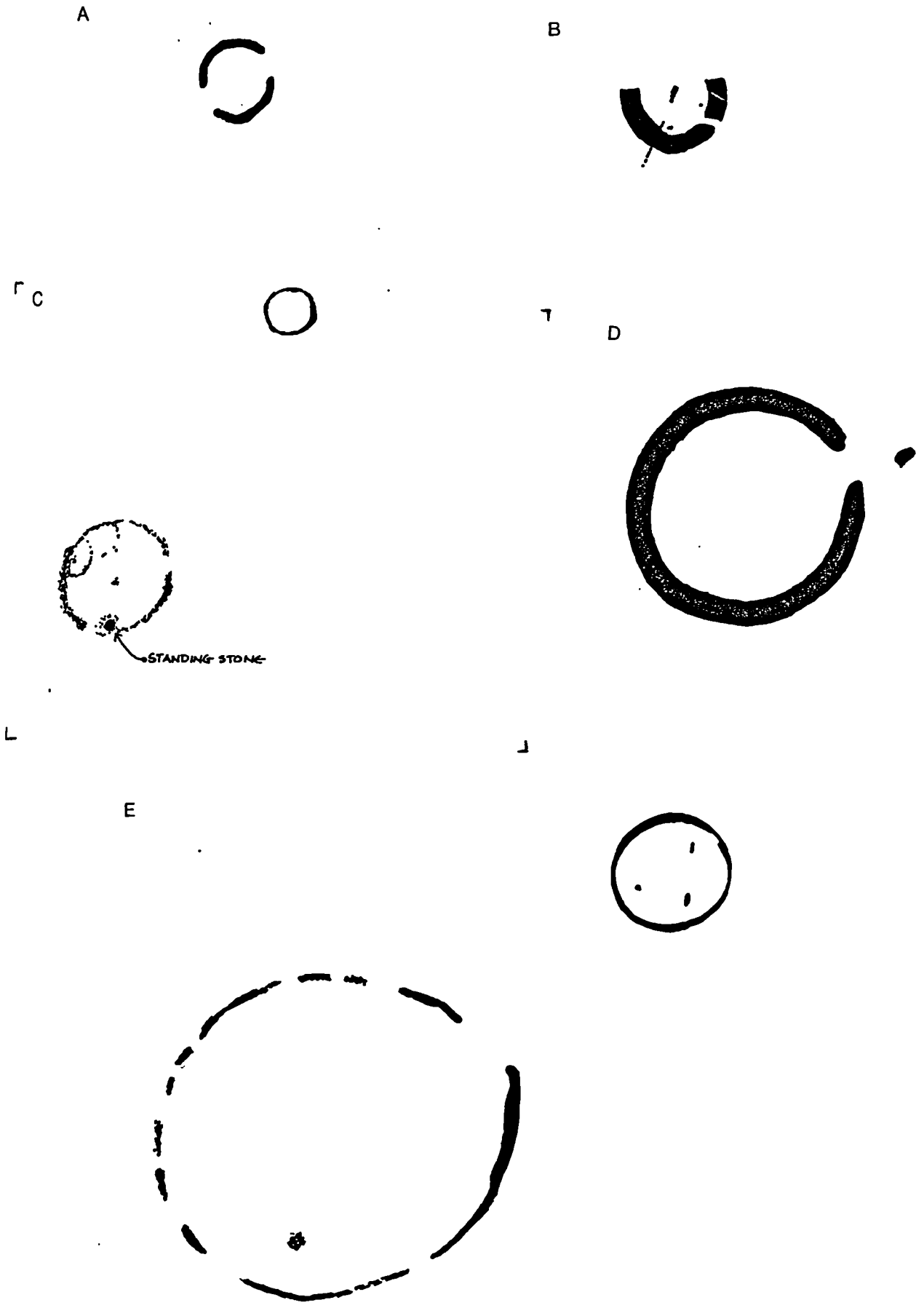
3.50 Comparative Plans of Cemeteries and Funerary Monuments at 1:1000.
A. Dornock Rings NN 877189, B. Marlefield 1 NO 057242, C. Oakbank
NN 856223, D. Carse of Lennoch NN 803225 (sketch plan, scale approximate)



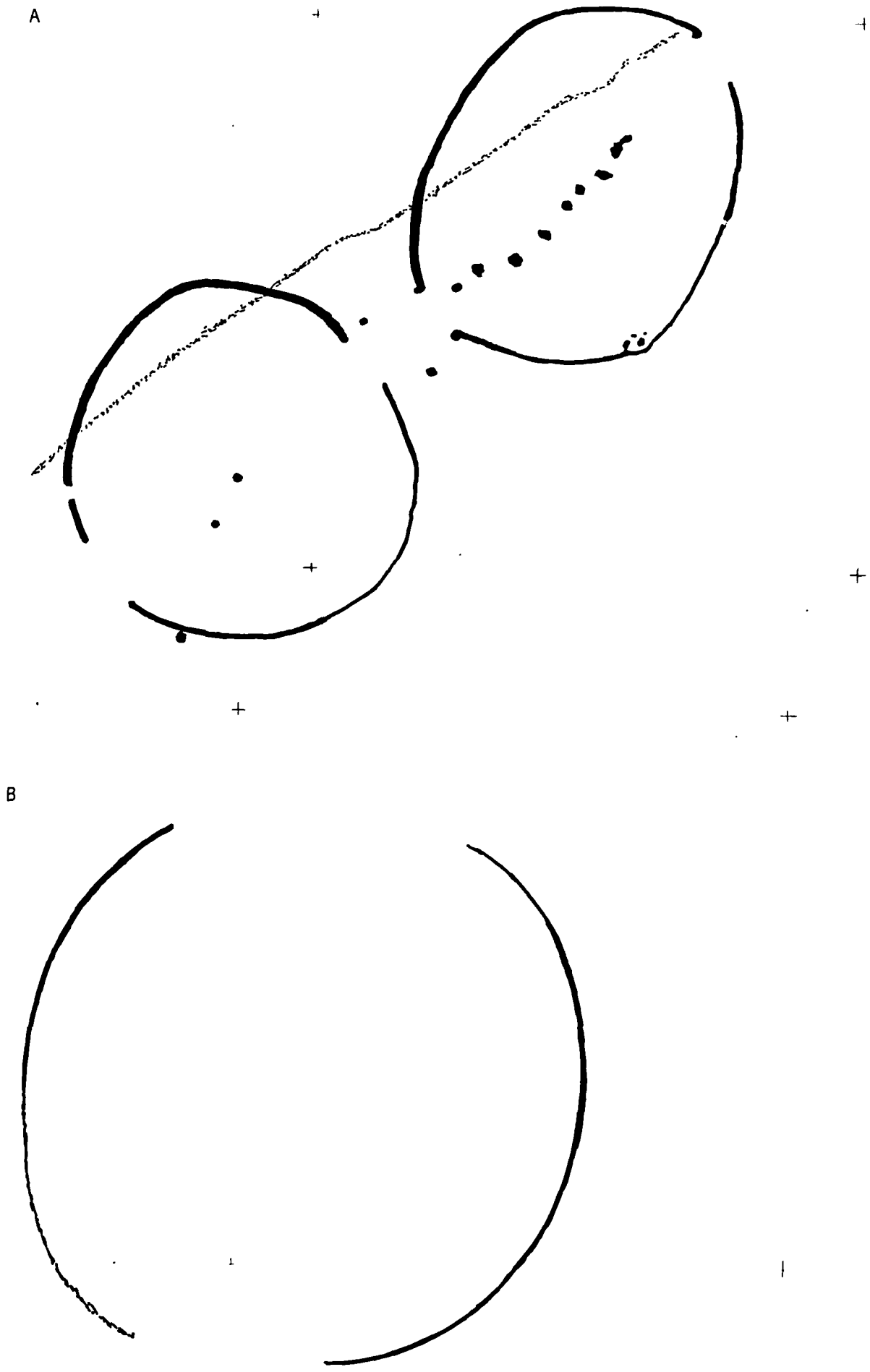
3.51 NO053173
FORTEVIOT CROPMARKS



3.52 Comparative Plans of Cemeteries and Funerary Monuments, continued. Excavation plan of North Mains Henge at approximately 1:400. Early Medieval graves are shaded purple.

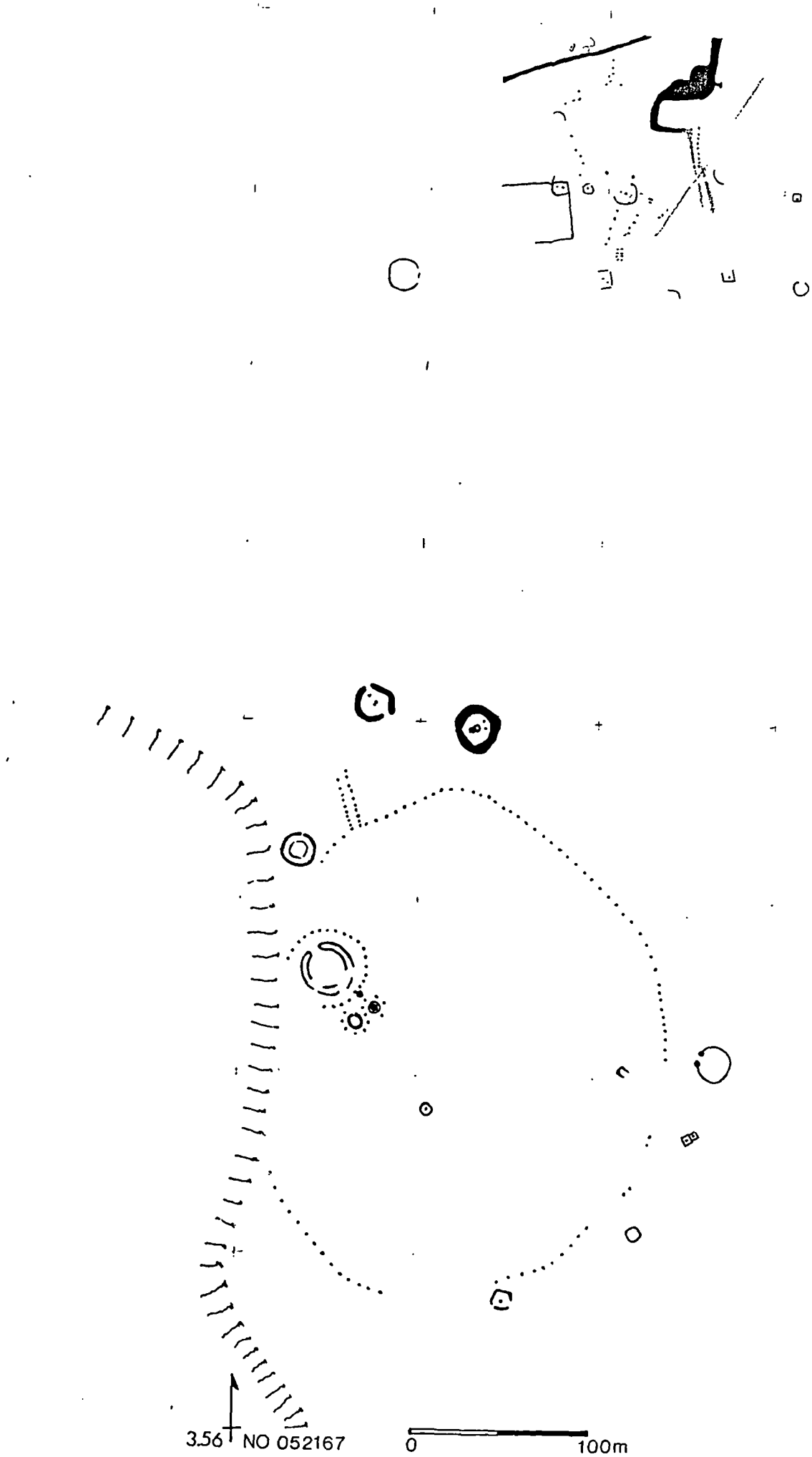


3.53 Comparative Plans of Prehistoric Ritual Monuments at 1:1000.
A. Coldrochie Henge NO 078292, B. Newton NO 088252, C. Belhie NN 977164,
D. Huntingtower Henge NO 081250, E. Leadketty I & 2 NO 021160.



3.54 Comparative Plans of Prehistoric Ritual Monuments, continued at 1:1000.
A. North Blackruthven NO 067246, B. Easter Cultmalundie NO 041227.

3.55 Comparative Plans of Prehistoric Ritual Monuments, continued at 1:2500.
A. Leadketty Complex NO 020159, B. Blairhall Complex NO 115280.



FORTEVIOT CROPMARK COMPLEX

SECTION IV:

Integrating the History and Archaeology

Introduction

The previous sections have outlined the social and economic context of Pictish settlement studies and have examined the available archaeological evidence for settlement in Strathearn. In this section we attempt to integrate these two bodies of knowledge to produce a coherent image of the social landscape. The aerial photographic sites particularly require to be seen in the light of our textually derived knowledge. Too often interpretative uncertainties are allowed to rob the aerial evidence of any historic meaning.

In studying the settlement evidence two paths have been followed here in an attempt to develop the latent historical meanings. One has been to combine the archaeological sites with the known historical geography derived from the contemporary sources, medieval texts and place-name studies. The other approach has been to use the historical texts to generate a systematic model with which we can interpret the historical evidence for settlement.

The first method has a credible track record. It has been used by antiquarians and modern historical scholars to locate sites of interest and to enhance their documentary findings. Alcock's campaign to uncover the early historic fortifications of Scotland may be taken as a model of how to proceed (1981), since he considers sites which are mentioned explicitly in annalistic sources as well as more oblique references embedded in hagiographic narrative. The method has also proved useful for providing cropmark sites with historical contexts; see for instance Anderson (1980: 203-4) and Alcock (1982) on Forteviot

and Hope-Taylor (1977) and Reynolds (1980) on Milfield and Sprouston in Northumbria. The obvious limitation here is that there is no way to compensate for lacunae in the survival of historically recorded names: sites like Clatchard Craig and Burghead, although clearly Pictish, are consigned to an historic limbo. Historians of the early middle ages are not likely to take much notice of such sites unless they are seeking material to illustrate their narrative.

For our purposes there are four types of evidence which we can draw upon to locate Pictish settlement within space, aside from the archaeology of the settlements. The first and most heavily exploited is the so-called generic place-names, the most familiar of which are the place-names containing the prefix pit-. A second related source is found in early church dedications and place-names indicative of early ecclesiastical establishments. More useful, but much rarer, are the places mentioned in contemporary texts. The fourth body of evidence which can be used to locate areas of Pictish activity is the so-called Early Christian Monuments of Scotland, many of which survive only as fragments. Like place-names, sculptural fragments are indicative of settlement in a general sense, but they carry the added implication that the associated settlement may have been of a religious character. Obviously close analysis of decorative motifs on the sculptures can provide considerable historical information, but for our purposes they will be treated simply as an index of activity. As it happens there is a high correlation of sites which may be located through these sources and the presence of cropmark sites. It is not however a relationship which lends itself to statistical examination. As a preface to

the consideration of specific sites and to provide a foundation for later discussion, the following chapter (11) reviews these four sources with particular attention to the generic place-names. This is then compared with the archaeological evidence in Chapter 12.

The second approach to integrating the historical and archaeological data involves a more ambitious method. It attempts to account for all settlement, not simply those sites prominent (or lucky) enough to have entered the documentary record. By drawing on what evidence there is for pre-feudal administrative systems and social *relations, it is possible* to propose a model which accounts for the social hierarchy and settlement correlates. The sources of our knowledge about Pictish society and administration are late and difficult to use, therefore it seems desirable to review the literature in Chapter 13 before discussing the model itself in Chapter 14.

Chapter 11

Preparatory to the Site Specific Analysis of Settlement

Generic Place-Names

Place-name studies, along with the symbol stones, are the twin foundations of Pictish scholarship and always have been. Like the symbol stones, the place-names have proved attractive because they allowed the elusive Picts to be located on the ground. There has really been no radical change in the methods since Watson (1926) placed them on firm linguistic grounds, except for Jackson's (1955) pioneering, if manipulative, use of distribution maps. Scholars for the most part still work with relatively late forms of the names and attempt to work backwards to the originals (Nicolaisen 1976). A common objective of place-name studies is to use linguistic analysis to allow the place-name scholar to identify different linguistic and cultural strata among the surviving names and to use the geographical distribution of particular elements to demarcate different cultural areas.

In The Problem of the Picts Jackson promoted the notion that the Pictish language was an admixture of a P-Celtic tongue (the same family as Welsh) and some unknown, perhaps non-Indo-European language. However that may be, it is the P-Celtic component which has been studied. The most well known Pictish place-name element is the prefix pit-, which derives from the word pett probably meaning 'portion or piece of land', and which survives in over 300 places in northeast and, rarely, northern Scotland. It has received the most attention because it is 'practically the only place-name element which can be said to be exclusively limited to

the Picts' (Nicolaisen 1976:151). There are at least six other commonly found P-Celtic place-name elements in Pictland: carden, pert, lanerc, pevr, aber (Jackson 1955) and tref (Nicolaisen 1976:162ff). These elements are found outwith Pictland in areas which were inhabited by Cumbric speakers in what is modern southern Scotland and northwest England. The first five of these describe natural attributes of the site meaning respectively: 'thicket', 'wood, copse', 'clear space, glade', 'radiant, beautiful', 'confluence, river-mouth'. Tref means 'homestead, village'. However, because they are not unique to Pictland they have received less attention than they merit from Pictish scholars. Indeed it is probably true to say that the study of pett place-names has flourished at the expense of these others.

Some of the most informative work with pett places has been done by geographers (Whittington and Soulsby 1968, Whittington 1975), who have closely analysed the physical geography of pett places. Their findings show a very strong preference for well sheltered, well drained locations with good loamy soils. Coastal situations and locations above 183m OD are generally avoided by pett names. This has been interpreted by the geographers as avoidance of these settings by the Picts. In short ' the distribution of the pit sites appears to agree with the distribution of the best soils in eastern Scotland; those which are best suited to agriculture' (Whittington 1975:102). By examining the suffixes it is possible to suggest that the occupants of pett places were engaged in a mixture of arable and pastoral farming. In addition, a large number of pett place-names contain suffixes which indicate that they were property of the church (ibid: 104). However the most striking aspect of the

suffixes is their overwhelming Gaelic (Q-Celtic) character including many Gaelic personal names. Although this has been seen to raise particular interpretative problems with respect to the formation of pett names, it should come as no surprise since pett still existed in Gaelic of the twentieth century (but was no longer being actively used to form place-names). Various conclusions have been drawn from this. Nicolaisen follows Watson and others in postulating a mass migration of Scots eastward following the accession of Kenneth mac Alpin. Nicolaisen argues that pett names must have been coined during the bilingual period after the middle of the ninth century (1976: 156). He argues that, despite the absence of pett names in Dal Riata, most of those in Pictland were coined by Scots. He offers no reason why they should use a foreign term for their newly acquired lands. A more sensible interpretation to my mind would be to see the pett as representing an agricultural unit or entity used by the indigenous Picts to describe land holding arrangements for which the incoming Gaels had no terminology. Nevertheless there has been widespread acceptance of the position represented by Nicolaisen, fostered no doubt by the uncritical belief in a mass migration of Scots in the wake of Kenneth's triumph. Despite Nicolaisen's assurances to the contrary, his argument seems to require a contradictory scenario in which the triumphant Gaels rename the landscape using the terminology of the conquered Pict. Even if we accept the notion of a mass population shift, why retain the term pett unless it conveyed some particularly important concept about the order of the landscape, one which existed before the mid-ninth century? This lack of a social dimension is a notable feature of the place-name research of both

the linguists like Nicolaisen and to a lesser extent the geographers. The introduction of social considerations is essential if we are to appreciate the historical significance of the pett names.

In the 1985 Rhind lectures G.W.S Barrow presented a detailed model of the toponymic development of Fife. Several interesting points emerged from his discussion which are worth noting at this juncture because of their historical implications. Firstly, the detailed examination of medieval texts revealed that a very large proportion of pett names seem to have been lost (compare Nicholaisen's distribution *maps with the figures 4.4 and 4.5* reproduced from Barrow 1973). In particular they seem to have been lost in the hills and upland areas. These places of marginal agricultural value were the first to be abandoned in periods of climatic deterioration or population decline as Parry has shown (1978). This challenges both the methods and conclusions of geographic studies of settlement based only on modern place-names. The observed lack of modern pett names in more exposed upland settings need not indicate that Pictish settlement avoided these areas. Another significant factor affecting the distribution of pett names is the replacement of pett names by the prefix bal-. The bal- prefix was still being used to form place-names as late as the fourteenth to sixteenth centuries, so it is impossible to estimate what proportion of bal- names represent earlier pett names. The implications of Barrow's work is that it is high. Secondly, Barrow interprets the linguistic survival of P-Celtic names like Comrie, Moncreiffe, Pitkeathy, Aberdalgie, Pitversie, Abernethy, Pitcuran and Carpow as an index of Pictish settlement and social continuity. Thus, while he

recognizes that the introduction of the Q-Celtic stratum of place-names between AD c. 800 and 1100 effected a quick and deep transformation in place-names, he places rather more weight on the P-Celtic place-names as an index of social continuity. His avoidance of the traditional date of 843 suggests that he regards the process of Gaelicization as a subtler, more complex process than the migrationists allow. Nevertheless Barrow is in effect echoing (without the migrationist slant) Jackson's recent view that the pett place-names:

> were formed as we have them sometime after the Gaelic settlements in Pictland in the middle of the ninth century, whether the original Pictish second elements of old Pett- names were translated into Gaelic, or were replaced by Gaelic name-elements, or whether they were wholly new foundations of Gaelic date. In this last case, the Gaels must have adopted the unquestionably Pictish pett as a name forming element for their own new place-names, no doubt because it expressed some characteristic feature of Pictish land tenure foreign to them but adopted by them when they settled among the Picts (1980:174).

It is clear from this that Jackson is arguing that the usage of the term implies an acceptance of the pre-existing system and a continuity of land use organization. We will return to the topic of the meaning of pett in land tenure terms in Chapters 13 and 14 and Appendix II, for the moment it is sufficient simply to register their location within the study area along with the other selected P-Celtic names (see figure 4.1).

Early Churches and Saints

The Pictish church presents so many unresolved historical problems, not the least of which involve its introduction, that one hesitates to make too much of any aspect of its early history. For our purposes it will be enough to consider, with caution, early church dedications and ecclesiastical place-name

elements simply as markers of early medieval settlement. For the purposes of this section 'early' includes the entire period spanning the later fifth century to the mid-ninth century; we will be more precise when possible. The presumption is that churches, once established, operated estates of their own and so, like any other large land owner, had tenants. Moreover, it is assumed that churches provided for the pastoral needs of their neighbours and were therefore surrounded by settlement. This seems to have been true regardless of whether they were run by monastic communities, were founded to minister to a king or other major landlord, or were less *formally organized* ecclesiastical groups, like the Céli Dé (Cowan 1961). In short we are *assuming* that by and large they were not eremitical churches.

The earliest stratum of churches is indicated by place-names which incorporate a P-Celtic form of the Latin word for church, ecclesia. Barrow suggests that among the Picts the term must have become embedded in the place-name vocabulary between c.450 - c.800 AD (1983:6). The antiquity of these eccles names has been long suspected: indeed one of the two examples in our study area appears to have been first identified by Skene. This was Exmagirdle (earlier Ecclesimagirdle), the site of an extremely obscure pre-reformation chapel, set in a circular churchyard adjacent to a ruined sixteenth century towerhouse, literally in the shadow of the Ochils (Skene 1887: 316). The other place bearing an eccles name is Glen Eagles, formerly Glenegles. The dedication at Exmagirdle is obscure; Skene suggested St.Odhram, mentioned in the Martyrology of Donegal, a possible corruption of St. Adrian. At Glen Eagles, the dedication is to St. Mungo or Kentigern. A St. Mungo's well still exists, but the chapel was

rebuilt in post-reformation times. The occurrence here and elsewhere of a British rather than Irish dedication is taken by Barrow to be an indication of both the source and time of the Pictish conversion; this is a point to which we will return.

The other generic, early ecclesiastical term which occurs as a place-name element in Strathearn is Culdee. As is well known Culdee is a transformation of Céli Dé, 'clients of God', the name of a monastic reform movement which originated in Ireland in the middle of the ninth century (O'Dwyer 1981). However, the nature of the Scottish Céli Dé is a matter of some uncertainty (Cowan 1974: 253). Their presence is attested to at a number of important centres where they seem to be associated with bishops: St.Andrew's, Dunkeld and Abernethy. The term was also used to describe independent communities, some of which, like that on St. Serf's island, had an eremetical nature. For the most part the monastic character of these groups cannot be demonstrated, and Cowan cautions against seeing them as representing a continuation of the Irish monastic tradition (1974). Rather he suggests that they are best regarded as colleges of clerics, who may have served the pastoral needs of considerable areas before the development of the comprehensive system of parishes (Cowan 1961:46).

Near to Muthill is a farm bearing the name Culdees, which may represent part of the holdings of the community established in Muthill itself. The community had a strong attachment to the cathedral at Dunblane and Cowan suggests that they represent a community in the service of the bishop as were the Culdees at Dunkeld and Brechin. It is not clear how early the foundation at Muthill was; the square tower and circular churchyard could pre-

date by as much as fifty years the twelfth century documentary notices (Donaldson 1985, Fernie n.d., Cowan and Easson 1976:51). The primitive incised cross on a grave slab in the churchyard also points to an early, if unspecified date. The origins of the other Culdee place in Strathearn is even more obscure. Near Methven, the traditional location of the ancient religious house and baronial castle is known as Culdeesland. This identification is corroborated by traces of a circular churchyard, and is supported by documentation indicating the existence of a community at 'Methfyn' before the early thirteenth century (Cowan and Easson 1976:50).

Evidence for early origins is less forthcoming for two of the major medieval religious houses in the area. At Inchaffray there are suggestions of a community of some description pre-dating the foundation of the Augustinian house c. 1200 AD. It was apparently of an eremitical nature, but its antiquity is unproven and Cowan and Easson do not regard it as being of early medieval date (Cowan 1961:46, Cowan and Easson 1976:48). Similarly they can produce no evidence to support the suggestions of a religious community at Scone pre-dating the foundation of the Augustinian Canons c. 1120 AD (ibid: 97).

Sifting through the bewildering mass of dedications to 'early' saints is altogether more difficult than inferring the presence of a church from the references in later charters or from place-names. Cowan (1961) argues that the formation of parishes was well under way in eastern Scotland by the time documents begin to become available in the twelfth century. How and exactly when these parishes began to take shape are questions we cannot yet answer. Certainly new churches were being founded

during our period and perhaps the subdivision of older parochial territories into new parishes had also begun. How much these parishes owed to pre-existing social arrangements is a question to which we will return. Although it is often possible to suggest a floruit for even the most obscure saints, there is usually no way of linking that to the foundation date of a specific church. Indeed it is unlikely that all, or even most, churches bearing a saint's name were founded anywhere near his or her lifetime (Hughes 1966). In a few cases however, it does seem possible that the dedication to an early saint marks a genuine early foundation.

In Strathearn the pre-eminent saint was certainly St. Serf or Servanus, who along with Kentigern and Ninian makes up the trio of great lowland Scottish saints (MacQueen 1980). They are of particular importance to the problem of the Pictish conversion because they all share a British, not an Irish, background. The historic material relating to all these saints is mostly late; although hagiographical material pre-dating the twelfth century once existed, almost none now survives (Boyle 1981 provides a useful introduction to this material). It seem likely that St.Serf lived between AD 450 - 700 and without doubt his main sphere of activity was Manaw and southern Pictland. He therefore can be placed at the cutting edge of the conversion of the southern Picts. According to his Vita Serf hailed from Jerusalem and Alexandria where he had a distinguished ecclesiastical career before coming to Britain. MacQueen's perceptive analysis of the mythological content of St. Serf's vita shows how the blend of the exotic and familiar were juxtaposed to emphasize the saint's achievements in promulgating Christianity and Roman

customs among the heathen Picts (1980). Clearly these Lives as they survive are constructions of the twelfth century and later, but where they can be corroborated they seem to draw upon a historical tradition , which was accurate at least with respect to early ecclesiastical sites and perhaps also about the process of conversion.

Many of the places mentioned in Serf's Lives bear dedications to the saint as MacKinlay noted (1914:484-5), and most of these are south of the Ochils in Kinross and western Fife. Probably the firmest association is with the community dedicated to Serf on the large island in Loch Leven which may have been founded under the patronage of the Pictish king Brude son of Dergard (Anderson 1980:100, Cowan & Easson 1976:150). St. Serf is also supposed to have founded the community at Culross, where he is said to have been buried and where, according to one version, he encountered the young St. Mungo. However, the site of his most colourful exploit was on the wild, north side of the Ochils, where he slew a dragon with his pastoral staff at the place known as the Dragon's Den, just south of Dunning. Serf is also said to have had a cell at Dunning which was the place of his death. I am inclined to accept Dunnning as the site of a Pictish church on the strength of the twelfth century tower (Donaldson 1985), the associated early Christian sculpture and for other archaeological reasons.

It is much harder to formulate an opinion about the authenticity of the claims put forward for the antiquity of other dedications to Serf in Strathearn. It seems possible, given his sphere of activity and his local prominence, that the cult of St. Serf spread *during* the Pictish period, but it is equally likely

that dedications continued to be made for a long period afterwards. However, we know that the churches dedicated to St. Serf at Dunning, Tullykettle parish (now part of Comrie) and Monzievaird parish (now united with Strowan) were bestowed upon Inchaffray Abbey in the early thirteenth century. One can still identify a St. Serf's well and the site of St. Serf's fair near the Ochtertyre family mausoleum, just west of Crieff in the Monzievaird area. In addition there are sites now lost from the map. The parish of St. Serfs centered on Almondbank was suppressed prior to 1619, and was then divided between the parishes of Luncarty and Redgorton. More recently a chapel dedicated to the saint in Tibbermore parish, south of the Almond mouth, was closed (MacKinlay 1914:487-8). It is impossible to pass judgement on these places at present,but we will have occasion to return to some of the sites later.

We are on much less firm ground with the dedications to other saints, who lack a strong historical tradition and whose Irish names generate difficult etymologies. One of the better documented of these is Rowan or Ronan, to whom the parish of Strowan is dedicated, and who has been identified with the Bishop of Kingarth, Bute who died AD 737 (Skene 1887:282). This nicely echoes the Bute connection indicated in the dedication of the Cathedral of Dunblane, from 'Blane's valley'; Blane was another Bishop of Bute. Unfortunately we must question this early dedication because the etymology looks bogus. Strowan is apparently derived from a P-Celtic word meaning confluence, and is recorded as one of the early thanages of Strathearn (Barrow 1973:58). There may well be an early church on the site, but the dedication to Rowan probably emerged after P-Celtic ceased to be

understood, and it cannot therefore be used as evidence for a church. Similar doubts must accompany derivations like the following: Findo-Gask parish was allegedly named for a St.Findoca who according to the Breviary of Aberdeen (not a reliable source) had a chapel within the diocese of Dunblane. Similarly, according to one etymology, the previously mentioned community at Methven was dedicated to a saint Methven (MacKinlay 1904:21-3), but here we might be better advised in seeing the place-name as a corruption of the name Mo-Bheathan, a saint of British origin who founded a church in Ulster before AD 800 (Watson 1926:311). This is made more attractive when it is recalled that the neighbouring parish of Fowlis Wester bears the same dedication, but there, and in its dependent chapel at Buchanty, Almondside, the name passed into modern parlance as St. Bean. It is perhaps worth pointing out here that the celebrated class II cross slab erected in the centre of Fowlis Wester was originally at the other, more isolated, chapel of St. Bean at Buchany, and was removed to Folwis Wester only in comparatively recent times (pers. comm. J.B. Stevenson quoting the authority of Rev. T. Hardey, minister of Folwis Wester (1852-1908)). The other class III cross-slab does of course belong to Fowlis Wester.

In the case of these St. Bean dedications we may be seeing the results of a process postulated by Cowan (1961), whereby parishes are hived off from earlier communities of clerics as endowments grew and demand for local priests increased. As a general process this is not a development that can be closely dated. If cross-slabs mark the sites of churches or chapels, and it is not certain that all of them do, then their wide distribution in southern Pictland suggests that there the process

was well under way by the tenth century. It may be that the growth of dependent chapels within a parish is part of a similar phenomenon. If the case of Fowlis Wester and Buchanty is typical, then this too seems to have been under way by the tenth century, again using the cross-slabs as a rough chronological guide. Similarly, within Muthill parish are found a St. Patrick's chapel and well (NSA 1885, 10:313), a possible eighth century church with well at Struthill (DES 1975:43) and the Culdees place-name already mentioned. The authenticity of these sites, especially those no longer visible on the ground is impossible to gauge and in the map accompanying this discussion (fig. 4.2) only the reasonably certain dedications are plotted.

Sites of holy wells and pilgrimage spots have place-name identifications as suggestive and tenuous as the parishes themselves. St. Fillan is at least provided with vitae, although not very informative ones. Boyle identifies him as the son of St. Kentigerna whose cult was based on Inch Cailleach ('nuns' island), Loch Lomond (1981:63). This would put St. Fillan's floruit towards the end of the eighth century or later. O'Rahilly on the other hand identifies him with the Irish missionary Faelan mac Oengus, who was active in the early sixth century (1946:373 n.1). Aside from his identification with Strathfillan, he is most strongly linked with Dundurn. The hill occupied by the fort is also known as St. Fillan's Hill and was until the nineteenth century a place of pilgrimage and veneration. There is some confusion about the location of the place of veneration however. Alcock excavated a naturally damp hollow (Alcock & Driscoll 1985), which had no spring but seems to have been the site of devotional activity stretching into this

century. Modern coins were found in it and a dry stone wall had been erected around it. Maria MacNeill on the other hand suggests that St. Fillan's spring, the source of a cure for barrenness, was located at the foot of the hill and she notes that the rocky seat on the summit, known as St.Fillan's Chair, was believed to be a cure for rheumatism (1962:368). Whatever the truth of the matter, there can be little doubt that Dundurn, as St. Fillan's Hill, was the site of pilgrimage. It is probably to serve the pilgrims that the pre-Reformation chapel, now standing in the small circular churchyard less than a kilometre from Dundurn, was built. Whether there was an earlier chapel on the site contemporary with the fort is an open question, but the shape of the churchyard suggests that there may have been. In any event the chapel does not seem to have ever been important enough to have generated a parish of its own.

We could go on in this vein, tracking down the marginally historical personages behind dedications and speculating on their antiquity. We have to search no further than Skene, who identified as 'Columban' foundations St.Cattan at Aberruthven and St. Ethernan at Madderty, while describing as 'more modern' (but pre-1200) the churches of St. Patrick at Strageath, St. MacKessog of Auchterarder and St. Bean of Kinkell (1887:404-5). However, there is almost no historical material that can be brought to bear on these and other sites, and we are probably safest in consigning all of them to the category of 'supposed early foundations' as Cowan and Easson have done for Madderty (1976:54). We will however encounter some of these again when we begin to compare the archaeological evidence.

Having surveyed some of the less problematic evidence for

ecclesiastical foundations in the valley, it should be evident that little can be said about the dating of these sites. If we accept Barrow's arguments relating to the introduction of eccles place-names, then we might expect the earliest foundations to appear in the fifth or sixth century. After that point the development is obscure. The one bright spot in our knowledge is Abernethy, where we may sketch a history of birth, growth and decline.

St. Brigid was the patron of Abernethy and according to one tradition the saint from Kildare personally directed the Pictish king to endow the religious community. The link with Pictish royalty is strong and, while there can be no question of the direct involvement of the Irish saint, who is herself probably a christianized pagan deity, the mention of the foundation by a Pictish king in several versions of the King Lists is indicative of any early tradition with some validity (Anderson 1980: 92-6). The endowment can only be dated to 724 x 1093, but Anderson tentatively favours an early seventh century foundation. She also notes that there is no unambiguous evidence for monks at Abernethy, although Céli Dé are attested until the thirteenth century. None the less, it seems certain that Abernethy was for a time a, if not the, principal bishopric in Pictland. Donaldson suggests an early eighth century date for the succession of bishops attested to in the Scottichronion (1985: 13-14). The primacy of Abernethy was brief, because it would seem that already during the eighth century Pictish royal patronage was being shifted to St. Andrews, and the elevation or foundation of Dunkeld in the mid-ninth century caused its final eclipse. As an administrative district, the parish of Abernethy retained its

importance and integrity until well into the Middle Ages, a point which is underscored by the selection of Abernethy as the place at which Malcolm III came to terms with William of Normandy. An interesting legacy of Abernethy's importance to the nobility of Fortriu is that the parish ended up as a detached portion of the old diocese of Dunblane, which during the later middle ages was patronized by the Earls of Strathearn.

The other better known legacies of Abernethy are the physical remains of the ecclesiastical community, which, until the early nineteenth century, included early buildings in addition to the famous round tower and the many fragments of early Christian carved monuments. Ruins of the 'monastic' buildings on the north side of the church yard were still standing c. 1780 and ruins of the church stood in the centre of the churchyard until 1802 when the new church was built (ONB 1860: 43). The round tower has been dated by Radford to the eleventh century primarily on the basis of the treatment of the door and windows (1942:3-4), and Fernie (n.d.) has confirmed this. However, it is evident from the masonry that there are at least two phases of building represented. The first phase consists of the lower 12 courses which is of a hard grey sandstone and stands about 3.5m high. The main body of the tower, which includes the door and windows, is constructed of a yellowish sandstone and must be a later rebuild of a decaying structure (Barrow 1979:202-5). It is this later rebuilt tower which has been dated to the eleventh century. How much earlier the first tower was built is impossible to tell, but informed opinion in Ireland suggests that towers there begin to be built c. AD 950 and that most date to the twelfth century (Rynne 1980:28). This provides a loose

terminus post quem for the Scottish towers. The other evidence of the early Christian community are the carved stones including the fragment of the class I symbol stone cemented onto the base of the tower and six fragments of class II or III crosses found around the village which testify to the religious presence in earlier centuries (Allen and Anderson 1903: 282, 308-12, 341). Needless to say these fragments lack archaeological contexts and in the absence of precise dating schemes for Pictish ornament, these do little more than confirm the importance of the foundation. There are other crosses which are arguably in or near their initial location and have been taken to mark the perimeter of the estate. M. O. Anderson suggested that stones (of an unspecified nature) might be expected to perform this function (1980:95) and certainly stones bearing names were used to define boundaries in the Book of Deer notitiae (see Appendix II, Jackson 1972:33). MacKinlay suggested that the Mugdrum Cross (Allen and Anderson 1903:367) and MacDuff's Cross marked the eastern perimeter of the 'monastery' (1904:189-90). To this putative boundary we might add the cross-slab from Carpow (Allen and Anderson 1903: 312-13).

Abernethy raises interesting questions about the combination of early medieval material remains and documentary evidence, which are of importance to this study in general. The foremost of these concern the significance and dating of the archaeological evidence. It must be said that the documentary evidence has been given much more scrutiny than has the archaeology. For instance, although the evidence of the early church buildings has been surveyed by Donaldson (1974, 1985), it is only recently that a detailed study by trained architectural historians was undertaken

(Fernie n.d.) One hopes that it will lead to better informed conclusions about the significance of these buildings , and away from ones which simply bolster the documentary narrative. Likewise, given the present state of scholarship on Pictish sculpture, which has not resolved the fundamental chronological differences outlined by Stevenson in 1959, the stones provide only the most restricted sort of evidence for settlement studies. The obviously Christian class II and III stones bespeak of well endowed religious establishments, which were either independent, or as is likely in the case of Forteviot, attached to secular households. The complex iconography of the crosses and their ultimate significance need not distract us here. For our purposes it will be sufficient to plot their occurrences (see figure 4.2). I have argued elsewhere that the class I symbol stones were intimately connected with burial rites, inheritance, and claims to property; and that because of this they were important for the development of the Pictish kingdom. (Driscoll 1987a and 1987b). I have no wish to repeat those arguments here, especially since there are so few surviving examples in the valley. The topic of burials does however lead us onto the topic of early Christian cemeteries, which in their own way are evidence for settlement.

We have already noted the burials within the Neolithic henge at North Mains (Barclay 1983), which can be paralleled at Cairnpapple, where the bodies did not survive (Pigggot 1948). Attention has also been drawn to the chapel at Mare's Craig, opposite Clatchard Craig, where, during commercial quarrying, a long-cist cemetery and 'Celtic' bell were discovered (Stevenson 1952:111 n.). There are confused accounts of a cemetery at

Dunmoid, south of Dalginross which seems to have consisted of long cists within a circular enclosure (Anonymous 1896: 165-7, 240). Similarly Watson cites an eighteenth century source for his suggestion that a long cist cemetery existed at Duncrub, near Dunning (1926:56 n.). At Muthill a strange discovery of two seventeenth century coffins in long cists is perhaps best explained as the reuse of the cists (Henshall 1956:296 n.5). In Perth what is described as a large long cist cemetery was uncovered in the late nineteenth century (Hutcheson 1903:236), and Henshall (1956) has noted two other possible long cist sites recorded in the NSA (1845, vol. 10:1063, 1118). Incidentally this density of burials hints at Perth's early importance, an importance which has been overshadowed by the royal splendour of neighbouring Scone. That Perth had a Pictish origin can hardly be doubted - it bears, after all, a P-Celtic name (Nic͡olaisen 1976) - however, none of the extensive excavations have yet revealed the Pictish settlement, so we do not know its nature. Some of the stray finds are suggestive of a place of some significance; they include two St. Ninian's Island type brooches (Anderson 1881, 20-1, fig. 14, Small et al 1973: 89, 90 fig. xlii, xliii) and a Viking style sword from the Watergate (Shetelig 1954, 72). This last find reminds us that whatever Scone was, it was not a port and that as a Pictish port Perth was likely to have been among the most important.

To complete this survey, we will turn to sites which have received explicit notice in contemporary or nearly contemporary sources. The evidence for the religious house at Abernethy has already been discussed, but to reiterate: it seems as though a foundation of some description, perhaps a monastery, was located

there from the early seventh century. In the early eighth century it would appear that it became the seat of a series of bishops and, finally, it housed a community of Céli Dé until the thirteenth century. Muthill too has been discussed. It was no bishopric, but housed an important group of clerics associated with Dunblane, itself an early episcopal see whose diocese included much of Strathearn (Donaldson 1953, 1985). The remaining sites for which there are references are of a secular character, and are recorded because noteworthy events took place there (Alcock 1981). The earliest notices concern Dundurn; and although they have already been discussed they are worth repeating. They consist of a single notice of a military engagement in AD 683 and the record of the death of a king of the Picts and Scots in AD 889. In the entry sub anno 728 in the Annals of Ulster, a battle is recorded between the Pictish king Elpin and a rival claimant Oengus I, who eventually succeeded him, at a place called Monid Croib. This has been identified as Moncreiffe Hill by Watson (1926:400-1), and the identification has not been questioned since. In the annals there is no mention of a fort or structure of any sort, but as Alcock has pointed out, military engagements in early historic Scotland often focused on fortified strongholds (1981). It is therefore reasonable to associate this reference with the fortified site on the summit known as Carnac (no. 6), which, as Feachem and others have noted, has early medieval characteristics. Incidentally Watson takes Monid Croib to mean 'hill of the tree' and suggests that the tree in question may have been the 'tribal tree'. Watson's suggestion, and the presence here of both a king and a future king either of whom may have occupied the site, makes it attractive to regard Monid Croib

as a royal fortress.

There seems to be a significant shift in the late eighth or ninth century away from defensive royal strongholds; or at least they become less prominent in the sources (cf. Alcock 1981). It is therefore possible to argue that as the strength of the Picto-Scottish kings increased, they abandoned their fortified residences and adopted more palatial accommodation. If this shift could be demonstrated, and more evidence is still required, it would have interesting implications for the study of early kingship.

There are two sites in Strathearn which seem to fall into this palace category. Forteviot, in the heart of the valley, is the traditional seat of the Pictish kings, much as Dunadd is regarded as a traditional seat of the Dal Riadic kings. Etymologically Forteviot is cognate with the kingdom of Fortriu, which suggests some royal presence there. The tradition of a Pictish royal presence at Forteviot persisted strongly through the medieval and early modern period, perhaps because it had a strong basis in fact. The historical and archaeological evidence has recently been examined in detail by Alcock (1982), so there is no need to do more than summarize his findings. The first reference to a Pictish king associated with the site occurs in the tenth century origin legend of St. Andrew's (Alcock 1982:215-6). The king is styled Hungus magnum rex Pictorum, but it is not possible to know for certain whether the Oengus linked with the site in the origin legend refers to the Oengus I who died 761 or Oengus II who died 834. Oengus I was certainly a magnum rex and is favoured by M.O. Anderson (1982:130), but Oengus II cannot be ruled out entirely. The other reference to a Pictish king at

Forteviot is marginally less ambiguous. In the King Lists the last Pictish king Durst son of Ferat it said to have been killed by the Scots at Forteviot and Scone (Anderson 1980:266, 273). Alcock suggests that 'although Forteviot had been the original location for the slaying of Durst, by the time the event was committed to writing Scone had eclipsed Forteviot and was thought to be a more appropriate site for the death of a king' (1982:216). Whatever the case, there can be little doubt that Durst's successor, Kenneth mac Alpin, thought the place appropriately royal.

Indeed one of the strongest indications of the importance of Forteviot's royal Pictish connotations is Kenneth's association with it. Although the only specific reference to Kenneth's presence at Forteviot is the record of his death in the palace (palacium), Fortevoit would have served as an ideal base to rule his joint kingdoms. Certainly once he became established in the east he seems to have shifted his whole sphere of operations there and is not heard of again in Argyll (Anderson 1922). Kenneth's successor and brother Donald can also be documented at Forteviot, before the focus of royal attention shifted to Scone and Forteviot disappears from the record.

Alcock notes that the only other instance of the use of the term palacium in the early Scottish sources relates to the death of Kenneth's brother Donald mac Alpin about 862 in palacio Cinnbelathoir (1982:213, Anderson 1980:250). Elsewhere Donald is said to have died at Rathinveramon and on Loch Adhbha (Skene 1870:92, Anderson 1980: 267, 274). The identification of Rath Inveralmond is clear enough as to its location. It must have been at the mouth of the Almond. Skene argues that the other two

places associated with his death should be identified with the opposite side of the river. Cinnbelathoir he identifies with Gold Castle right on the bank of the Tay and Loch Adhbha with the place-name Loch Eye nearer to Scone (1870:92-3). The point at which the Almond joins the Tay has been a favoured crossing place since Roman times at least. The main Roman road leads to this bridgehead and Roman fortifications are known on both sides of the river. Both Skene and Alcock have proposed a tentative identification between the palace site and the Roman fortifications. However, given the wealth of cropmark evidence for other kinds of structures in the area, this requires some reconsideration, which we will undertake in the next chapter.

In similar fashion the cropmark evidence can contribute to our understanding of Scone, which although not located in Strathearn, is an inseparable part of its historic landscape. Skene's consideration of the historical and pseudo-historical evidence bearing on Scone and the coronation stone summarizes quite adequately the case for regarding Scone as a Pictish inaugural site (1870). Briefly, his findings are as follows. Scone as a place of importance seems to have existed before Kenneth mac Alpin and arguably can be identified as early as AD 728 when the Annals of Ulster record a battle between rival Pictish kings at castellum Credi. Skene identified this with the hill of belief, collis credulitatis, which is the Moot Hill (now known as Boot Hill) at Scone (1870:88). A. O. Anderson objected to this identification on linguistic grounds (1922:224), but M.O. Anderson seems to accept that castellum Credi was the name of a Pictish royal fortress at Scone (1980:178). Duncan also accepts this reference as evidence that Scone was 'a place of

significance in Pictish times' (1975:115). We are on firmer ground from Kenneth mac Alpin's time onwards, because the many identifications and inaugurations up through that of Alexander III can be accepted as legitimate. In Skene's mind, Scone was the 'capital' of the Southern Pictish and later Scottish kingdom: the principal residence of the monarch, the location of parliamentary gatherings of the nobility and clergy, and of course a place for royal inaugurations like those which occurred at Tara. There are clearly anachronistic elements here. It is hard to accept the notion of a capital if it is understood to mean a national administrative centre. From what we know of early medieval governance, administration was devolved on to many separate centres and the lord was obliged to ride circuit among them. Moreover, whatever the nature of the assemblies which took place at Moot Hill - Skene locates Bede's story of Nechtan having Ceolfrith's letter on the observance of Easter read to the assembled nobles at Scone - they cannot be construed as marking the origins of parliamentary democracy in Scotland, as Skene seems to imply. Having said that Scone was a place at which royal *inaugurations* occurred, court was held, and the king resided it does offer many points for comparison with Irish inaugural sites, as described by Binchy (1958). But more to the point, it encapsulates many of the qualities of the pre-feudal shire, the fundamental administrative structure of early Scotland. Before we can go on to consider that, however, we must turn again to the archaeology.

Chapter 12:

Marrying the Documentary Evidence to the Archaeological

So far evidence relating to historic places has been deployed in an unsystematic manner. It has been used mainly to provide chronologies and to characterize particular types of sites. In this chapter we will rectify this situation by reviewing the historical evidence referring to prominent places in Fortriu, while at the same time summarizing the archaeological evidence relating to those places. The haphazard presentation of the evidence on historical places so far has, perhaps, had the misleading effect of minimizing the importance of the relevant historical evidence. This is unfortunate, but has been done for several reasons. Firstly, in order to break down the division between historical and archaeological evidence (Driscoll 1987a), it has been advantageous to avoid a section on the 'historical evidence'. Secondly, it was not the intention of this study to focus particularly on the archaeology of the Pictish aristocracy. The historical material has been used deliberately to expand the horizons of what constitutes legitimate Pictish studies away from the traditional historical concerns with kings, bishops and battles. Thirdly, by delaying this discussion until after the presentation of the archaeological evidence it was hoped to avoid prejudicing the consideration of the archaeological material, particularly aerial photographs. This then is the proper place to draw together those historical notices which have been neglected, but firmly within the context of the associated archaeological evidence. However it would be impossible to make a comprehensive comparison; only a selection of the possible situations in which documentary and archaeological evidence may be compared are

discussed in any detail. In this chapter I have adopted conventional values and chosen to focus on those sites of greatest historic interest rather than document every occurrence of a cropmark in the neighbourhood of a pett place-name. Interested readers should be able to conduct their own comparison between the documented or place-name sites and the archaeological material using the distribution maps provided in the previous chapter (see figures 4.1 and 4.2) in conjunction with the 1:10000 maps in Appendix I. It should also be said that this chapter does not attempt to examine any possible relationships between the various sites; we will come to that shortly.

Abernethy (NO11NE, NO21NW)

Here the first thing to point out is that unlike many major contemporary Irish monasteries, there is little in the topography of the modern village to indicate the former presence of the religious community, aside from the round tower and cross fragments. One might suggest that the curved line of the main road, known as Black Dykes, follows the line of a circular vallum and that the bend in the School Wynd, which runs by the church preserves the position of the inner enclosure, but in neither case does the length of curve inspire confidence. In the previous chapter we commented upon the density of religious sculpture and mentioned the possibility that certain crosses marked the boundary of the community's holdings. One could go further and compare the extent of the holdings as indicated in some versions of the King Lists and charters of the twelfth century and later (cf. Anderson 1980:93) with the distribution of the archaeological material. It so happens that they agree, but only

roughly. We will return to the internal organization of Abernethy later.

The major fortified stronghold in the area was Clatchard Craig, which although it has no historical notice seems to have been a place of regional importance. A notable feature of the cropmarks in this parish is the extent to which they provide evidence for strip agriculture, not only in the splendid features at Balgonie, but also at Aberargie, Easter Clunie and Mugdrum. As I have stressed, the features at Balgonie are important because of the relationship between the enclosures and the separate episodes of strip agriculture. Aberargie and Easter Clunie are important for similar reasons. At Aberalgie the strip fields overlie the enclosures, while at Faster Clunie the strips seem to respect the small unenclosed settlement with a souterrain in such a way as to suggest that they are contemporaneous. Carpow also falls within the parish and is noteworthy because it seems to post-date the legionary fortress there.

Dundurn

The history and archaeology of the site have been well discussed (Chapter 9), and there is little to be added to the discussion of this site by aerial photography. During the summer of 1977 cropmarks of small, sub-rectangular features were photographed from the summit of the hill. These were located to the southwest of the hill, but were unfortunately unplottable. In any case the archaeological origin of the features is far from certain.

Dunning (NOØ1SW)

Here the combination of historical and archaeological methods has proved particularly productive. As we saw, the references in St. Serf's *vita* included the existence of a monastic cell and the slaying of a dragon, but the text is late and the church tower itself probably does not pre-date the manuscript by much. An earlier religious presence is suggested by the fragmentary cross-slab now housed in the church. The most compelling evidence for a Pictish presence there comes, however, from the hill which sits between the church and the traditional location of Serf's battle with the dragon, Newton of Pitcairn. Aerial photographs of Dunknock reveal four, possibly five, closely spaced ditches of a hillfort of the type which we have suggested is likely to be of early historic date. Evidently it is the presence of this fort which gave the settlement its name. The juxtaposition of a fortified site and an ecclesiastical foundation is something we have seen elsewhere in the valley, at Dundurn and Clatchard, and it may be taken as an indication of the importance of this settlement within the valley. Although this is anticipating a later discussion, it is worth drawing attention to the siting of Dunning at the centre of a cluster of *pett* place-names, ecclesiastical remains and a long cist cemetery, all of which suggest that we are looking at the focal point of a Pictish estate. We will expand the argument supporting this suggestion in the next chapters. For what it is worth, the traditional knowledge of this corner of Strathearn as recorded in the early eighteenth century included a specific reference to the former existence of a Pictish fort on Dunknock (Watson 1926:56 n.).

Forteviot (NO01NE, NO01NW)

The presence of extensive cropmarks has already been discussed with relation to the historic evidence (Anderson 1980:203-4, Alcock 1982). However these discussions have been limited to the two well known areas of cropmarks, the prehistoric ritual complex and the so-called 'palace complex'. When one looks at the density of cropmark evidence from both sides of the May Water and considers the traditional location of Malcolm Canmore's palace on Haly Hill, northwest of the church, the clarity of archaeological focus diminishes. Firstly, the prehistoric ritual complex, composed of the pit-defined enclosure, henges and various barrows, rather than being on the periphery of an axis defined by the church and the 'palace complex' now assumes a central position between Haly Hill, the church and 'palace complex' on the one side and the extensive settlement remains to the south which include the small promontory fort at Green of Invermay and the palisade at Gallows Knowe. In a sense this heightens the potential importance of the prehistoric ritual area, which although surrounded by later settlement appears unencroached upon. The second major change in the interpretation of Forteviot concerns settlement. It is now clear that there are quite a lot of unenclosed settlement remains both near the church, across the May Water, and in the Gallows Knowe area. In addition it must be said that, while the cropmarks provide fairly convincing evidence for Pictish and early Christian burials among the features of the 'palace complex', there is nothing which looks very much like a building. Therefore it is probably best to abandon the term, particularly in light of Alcock's suggestions that the ruins attributed to Malcolm Canmore, which it seems were

washed into the May, also included earlier structures (1982). Chief among these was of course the building, probably a chapel from which the monolithic arch came. What we are left with is a very densely packed landscape, with several potential loci for royal residences, but with no clear favourite except for the now lost buildings on Haly Hill. Indeed, if we imagine Fortevoit as a principal royal residence, then it is likely that periodically large numbers of lords, royal officials, clergymen and other members of court will have had occasion to stay here. That being the case it is perhaps not unreasonable to include places at the edges of the parish, like the fort at Jackshairs, as part of the royal complex. It is in this context of court ceremonial that the evidence for the presence of a religious community at Forteviot should be placed. The arch mentioned above has been used as evidence for the existence of a royal chapel of Pictish date; but dates in the late ninth, and even eleventh, centuries have been proposed and may be preferred (Alcock 1982). This identification is supported by the presence of six cross fragments found in and around in the church, the splendid Dupplin Cross, which was probably erected sometime after c.850 to the north of the village, 1.5 km across the Earn, and fragments of a cross similar in style to the Dupplin Cross, which were found about 1.3 km to the southwest of the village (Allen and Anderson 1903:321-8). Together this material may be used to suggest the presence of an otherwise unattested monastic establishment attached to the royal household.

Gleneagles (NN90NW)

This is potentially one of the most pivotal locations in the

valley, because the monuments cluster at the junction of Strathearn, Strathallan and Glen Eagles. Clearly this was the major land passage into the valley from the Forth valley via Dunblane and Strathallan. The likely location of the early Christian church (eccles) is up the glen, presumably near St. Mungo's well, but the most substantial evidence of settlement, the type III fort of Loaninghead, is located right at the junction. Across the A9 from the fort is the Blackford symbol stone, a class I monument with faint carving on a pillar-like boulder (Calder 1947). Aerial photography reveals the presence of two enclosures south of the symbol stone as well as other smaller features including a possible square cairn. In the immediate neighbourhood are two further small enclosures. Taken in conjunction with the castle at Glen Eagles, it is possible to generate several possible sequences of occupation for these settlements, which attest to the continu‿al importance of this passageway into the valley despite minor locational shifts.

Inveralmond (NOØ2NE, NOØ2SE)

Attempting to ascertain the historic significance of this place illustrates the pointlessness of conducting place-name studies in isolation, as well as pointing out one of the limitations of trying to match historic places with specific archaeological remains. As was mentioned, Kenneth mac Alpin's brother Donald is recorded as having died at a palace located in a rath at the mouth of the River Almond (Alcock 1982:213), while a different tradition records his death on the opposite bank at a place identified with an earthwork and cropmark site known as Gold Castle (Skene 1870:92-3, Crawford 1949: fig. 13). In

attempting to resolve this contradiction, the first question which arises is: do these different names refer to the same place or are some of the sources or identifications mistaken? Not being in a position to comment critically on the etymological aspects of the identifications, I can only judge the results. The closeness of the different places to one another suggests one possible solution. Perhaps the various names all refer to different aspects of the same thing, for instance, different parts of a large estate which spanned the Tay at the confluence of the Almond. A second, equally pertinent, problem is posed by the attempt to identify the documented site among the mass of the aerial photographic evidence. The first step to answering both of these questions is to discard the suggested identifications with the Roman fortifications guarding the bridgehead. Instead we must consider the totality of the aerial evidence in the area. Here 'in the area' means both sides of the river. It also means that we must allow for the possibility that there was an identification between the royal palace at Inveralmond and the inaugural site and meeting place of Scone.

For the moment, let us suspend judgement on these and related questions and look at the aerial evidence. Here, for the sake of clarity, we will first discuss features on the west side of the Tay, where Alcock located Rath Inveralmond (1981). We will turn to the evidence on the Scone side in due course and at that point can compare the two sets of evidence. There is no need to stress that we do not know what a Pictish or Scottish palace might look like; the ambiguity of the Forteviot evidence makes that plain. As at Forteviot, there are extensive cropmarks along the lower reaches of the Almond. In fact, after Forteviot the

cropmarks at Huntingtower Haugh are probably the best known in the valley. As Barclay has pointed out, several of these are hengi-form (1982); in addition to those suggestive of a neolithic date, there are several oval and circular enclosures of fairly simple design. None of these provides an attractive candidate for an early historic settlement of any prominence. Here the presence of Huntingtower castle itself might make up for this lacuna if it had been built on the site of an early historic fort. There are however other possible candidates outside the Huntingtower complex. Further upstream, and overlooking the river, is the type III promontory fort at Almondbank, which survives as a standing monument, while to the north of the Almond, less than 1 km from the Tay, is the cropmark fort of Broxy Kennels, also of type III. Both of these forts are perhaps a little distant from the mouth of the Almond for a place named Rath Inveralmond, but they remain the most likely examples of early historic fortifications in the area. Of the two the Almondbank fort probably is the better candidate for Rath Inveralmond.

Moncreiffe (NO11NW, NO12SW)

There is little to add to the identification of Monid Croib with the summit fort on Moncreiffe Hill other than to note the existence of various poorly revealed enclosures in the immediate neighbourhood of Moncreiffe House, at the south foot of the hill. In the context of royal residences, it is worth repeating the comments about the impressive entry way and the extreme depth complexity of the spatial arrangement of the defences. In addition Watson's suggestion that the place-name meaning 'hill of the tree' refers to the 'tribal tree' would support a royal

association. It is perhaps also worth remarking on the presence of the possibly contemporary fort occupying the Roundel, near Hilton House. As the 1:10000 map shows, this type III fort does what Moncreiffe fort could not: monitor traffic from the south via the Bridge of Earn to Perth and Scone.

Muthill (NN81NE, NN91NW)

Similarly aerial photographic evidence does not so much *add* new identifications, as fill in the background to the site. As can be seen from the maps in appendix I, extensive settlement and cultivation remains exist along the Earn which may be compared with place-name evidence. It is worth drawing particular attention to the non-Roman cropmarks in the Strageath area.

Scone (NO02NE, NO12NW)

Before returning to the Rath Inveralmond problem, a discussion of the aerial evidence is in order. Skene identified Cinnbelathoir, 'golden road-end' with Gold Castle (1857:92-3), which is a large rectangular enclosure currently being eroded away by the Tay, about 1 km north of the crossing place. The 'golden road', Skene thought, referred to the Roman road. The other identification suggested by Skene was Loch Adhbha, 'loch of the palace' with Loch Eye, a name now associated with a dry field between the Roman road and Scone (ibid:93). Skene, of course, could have known nothing of the existence of the substantial enclosure with its impressive entryway at Grassy Walls, nor of the complex of prehistoric ritual monuments at Blairhall; both of these are cropmark sites. The place called Loch Eye is situated almost midway between the two AP sites, and the actual inaugural

site at Moot Hill lies 1.5 km south of the pair, well away from the line of the Roman road. The cropmarks at Blairhall can perhaps be regarded as performing the same role as the henges at Forteviot, or the passage grave at Tara.

As at Forteviot, the positive identification of a royal residence is impossible. In both places ploughing and subsequent building have obscured much, and at Scone this has been particularly severe as a result of the foundation of the Abbey and the various building programmes at the post- medieval palace. The plan of the enclosure at Grassy Walls, while providing a most attractive candidate for an early historic royal residence, is so unusual that it would be unwise to press this identification, but it must be considered a possibility.

As regards the Inveralmond/Scone question, it may be that the ambiguity of our sources about the location of Donald's death is an indication that the period during which the different accounts were being compiled saw sufficient development to generate confusion. Alcock has suggested a similar explanation for the confusion over the place of death of Drust son of Ferat (Alcock 1982:216). Whatever the precise cause of the confusion, one result is to suggest that Scone and Inveralmond, if not actually the same place, were quite intimately related. One could even suggest that while Scone was the ceremonial focus of the kingdom, and hence the site for gatherings of the Scottish court, Inveralmond was a Pictish royal estate which was convenient to Scone.

Scone is the last of the major places suitable for this particularist drawing together of historic references and

archaeological evidence. It should be clear from the preceding pages that the archaeological evidence does far more than confirm the historic notices, it adds a great deal to our understanding of the nature and setting of these sites. This is true even when the identification between the named place and the archaeological evidence is uncertain, as in the case of Scone. The case of Scone/Inveralmond, and the archaeological evidence in general, raises another set of problems concerning the nature of the relationships between neighbouring sites and in so doing reintroduces the topic of pre-feudal estates. This issue occupies the final stage of the analysis and it is to that which we will now turn.

Chapter 13

Landscape Model: Spatial Order and Social Reproduction

So far we have treated the evidence for settlement as if it represented so many independent communities with little or no inter-relationship. We know that this was not the case, if for no other reason than because Strathearn formed the core of the recognizable political entity of Fortriu. In this chapter, we will review some of the evidence on the organization of Pictish and early Scottish society, which will allow us to suggest how these individual sites were related. The conclusions drawn from this review will then be used to construct a model, which will allow us to appreciate better the social significance of the settlement evidence. Model building is a speculative exercise and the value of this particular set of speculations is to be found in its historical grounding. One distinct advantage of modelling from an historical basis is that it makes it unnecessary to consider the more abstract and schematic settlement models, which are prevalent in the prehistoric literature. This exercise should help us to recognize better the expressions which are encoded within the architectural forms and site locations. To do so demands that we return to the notion of discourse, and see in the building of houses, laying out of fields and construction of fortifications statements about the social conditions which the people of Fortriu created for themselves.

In order to produce something resembling an integrated model of the social landscape, we can begin by examining the institutions which helped to define that landscape. There are two ways (at least) of viewing these social institutions. The

perspective commonly adopted is from the top-down or, more accurately, the top alone -isolated from the rest of the population. The nature of the documentary record has encouraged the major historians of the period, including Duncan, Donaldson, M.O. Anderson and Smyth, to focus on the top levels of society. The reverse, a bottom-up perspective (Christopher Hill's 'worm's eye view'(1972:14)) has not really been attempted. Barrow is to some extent an exception, because, having devoted so much attention to the problems of land tenure, he has revealed aspects of lordship from the client's perspective. However at the end of the day, his concern is essentially to explain how these institutions help us to understand the activities of the aristocracy.

Historical scholarship on the early development of the great national institutions, the monarchy and church, is not without its value, even for studies which aspire to adopt the bottom-up approach. Donaldson's efforts at elucidating the development of the diocesan structure of Scotland include many points of relevance for us (1953, 1985). In addition to demonstrating the early, sometimes Pictish, origins of the bishop's sees at Abernethy, Dunblane, Dunkeld, Brechin and St. Andrew's, his study makes it clear that the church organization in the east was fundamentally different from that in Dal Riada and Ireland. In the east before the accession of Kenneth mac Alpin, the church hierarchy appears to have been far less monastic in character than in the west and more orthodox in its division into bishoprics and parishes. Its development as an administrative organization seems to be bound up with related administrative developments within the Pictish kingdoms. M.O. Anderson suggests

that the presence in eleventh and twelfth century Scotland of 'regional bishoprics, and of a high status accorded to bishops...may have their roots in the eighth-century reforms introduced into Pictavia from Northumbria' (1982:128-9). Whether it was due to the Northumbrian influence or the earlier practices introduced at the time of conversion, it seems clear that 'the Picts had grown used to something more like an orthodox "Roman" organization' (ibid:130). This was all changed with the introduction of an Irish-type monastic church organization. The erection of a church at Dunkeld to house the relics of St. Columba by Kenneth in AD 848-9 is a sign of this transformation and seems to mark a significant cultural break in Pictish/Scottish cultural history.

One result of the introduction of an Irish style church and the replacement of Pictish speaking clerics with Gaelic speakers was to enhance claims that Columba was an important influence in the conversion of the Picts, claims which have been repeated from Skene's day to our own (Hughes 1980). Donaldson and Anderson have shown that, although monasticism was not unknown, a strong Columban influence is not apparent in the early organization of the Pictish church. This is especially true for southern Pictland, so in this respect, the Pictish church can be said to have been shaped along orthodox lines by local political concerns, rather than missionary monasticism. These observations have important implications for our study, because they suggest that the church will have followed local practices in the administration of its estates and that the evidence regarding the organization of the church's estates may serve as a sound basis for generalization about Pictish estate management (see Appendix II).

Similarly, the history of the Pictish monarchy suggests that stable, if antagonistic, political entities emerged at the same time as king lists, perhaps as early as the middle of the sixth century (Anderson 1980:139-45, Miller 1979:11). If we are to accept Smyth's interpretations of the king lists and annals, then it appears that from the sixth century onwards several highly competitive dynastic groups from different areas of Southern Pictland were grappling for the paramount kingship which was usually based in Fortriu (1984). Moreover, as Wendy Davies has pointed out, the reference to the death of several royal officials, described in the Annals of Ulster as exactatores, presumably a corruption of exactores, 'collectors of dues' or 'agents', suggests that by the early eighth century the 'Pictish kings were developing some real machinery of government' (Davies 1984:70, Anderson 1980:178).

Collectively these scattered details attest to the formation of the administrative apparatus of the medieval state. We cannot doubt that the development of these institutions had a strong impact on the organization of society. But at the same time there exists compelling evidence that these administrative techniques grew out of pre-existing social practices. We will come to the details of this evidence in a moment, but there are also theoretical arguments supporting this notion of pre-feudal administrative structures. As we argued in the introductory section, culture does not manufacture social practices out of nothing; there is always reference to what has gone before. It is this recursive property of culture that encourages us to postulate the antiquity of some of the institutions which we only begin to see clearly in the twelfth century.

The most fundamental of these institutions was the administrative structure known as a thanage, or more conveniently as a shire, which as we have already seen was managed by a thane, a royal official appointed to look after the scattered royal holdings. The important thing to recall here, is that, despite the first historical emergence of the thanage into the documentation of the twelfth century, its origins lie in the traditional obligations of lordship or clientage, which grew up around the small 'tribal kingdoms', but which have their origins in the kin-group. It is here that any attempt to write history from the bottom-up must begin and it is in these traditional obligations of clientage that we must ultimately seek our explanations of the settlement system.

Social Transactions

The order and coherence evident in the twelfth century notitiae in the Book of Deer provide us with confidence in the existence of Pictish institutions of clientage and associated land holding practices (see Appendix II), but it is from other less unified or systematic sources that we learn the more specific details of the Pictish social order and its reproduction. To review our earlier arguments: the tenure of land does not in itself confer permanent rank or social position. Within any society position and status are the result of continual negotiations and interactions among its members, some of which focus on control of land. It frequently transpires that specific social transactions become institutionalized and assume an added importance beyond the immediate value of the goods or

services or words exchanged. Such transactions come to symbolize the relationship itself. It is these sorts of transactions which enter into the historical record because of their implicit meanings of fealty and loyalty, or,when they were violated, of treachery. On first sight, it may seem that the rendering of food or the performance of military service are too 'practical' or too 'functional' to carry meaning beyond the self-evident. However, as Jaques Le Goff has shown us (1980), in the early middle ages, it was from the repertoire of the common-place and the routine that acts of particular symbolic significance emerged and part of their efficacy comes precisely from their common-place origins. In medieval Scotland we may discuss significant social transactions in several areas. There are acts performed by dependents for their superiors and a reciprocal set of acts performed by the superiors. These acts may involve either the exchange of material goods or of services. As we will see the acts and the goods appropriate to a specific relationship were sharply defined and not interchangable.

The main material obligations of dependent participants in the social contract were the provision for their superiors of agricultural products, cain and hospitality, conveth. Barrow was not the first to identify the similarities between early Scottish institutions and those found elsewhere in Britain (1973), but his reading of them is important because it appears to take the traditional Scottish obligations of food render and labour services back into the Pictish era. It should be noted that he is cautious in attributing specific developments to the Pictish period, but it is impossible to conclude that he does not believe in a strong Pictish influence in these developments.

We have already given some consideration to food renders; here it is only necessary to note that it seems likely that the more dependent clients provided the most substantial quantities of cain, whereas clients of a higher stature probably provided renders which more closely fit the translation of the Welsh equivalent of cain, gwestfa, 'food-gift'. Conveth is a little more difficult; like food renders, the provision of hospitality will have varied in accordance with the agricultural specialities of a region. Like cain, conveth could include sizable renders of cattle, swine, cheese, malt, barley and so on, especially where the obligation included entertaining the lord's retinue. Perhaps in these circumstances we are entitled to describe such hospitality in terms of feasting (Barrow 1973:46-9), but it is not too clear who should be considered the host. In contrast to cain we may suppose that the burden of conveth fell more heavily upon those clients who were better able to entertain their lords. In conveth and its English equivalent 'waiting', it may be said that we have the institutionalized framework of the peripatetic lordship of Early Medieval Britain, as Alcock has noted on more than one occasion (1971:322-3, 1986, 1987a). In Scotland we can even see this framework preserved in the landscape; Barrow has noted several places bearing names which indicate that it was there that the lord received his conveth (1962).

The service obligations of the dependent fell into three categories: military, building and agricultural labour, some of which are archaeologically visible. Of these three, we may be most certain that army service of some description existed (Duncan 1975:110-11, Brooks 1971, Alcock 1987b). To judge from their early medieval neighbours, each Pictish household would

have been obliged to provide a warrior or part of a warrior (perhaps one for each pett or davoch), where household is understood to mean the holding of a person of free status. The best evidence for a systematic levy of soldiers in the Celtic world comes from the Senchus Fer nAlban, which contains among other things a survey of the military resources of Dal Riada parts of which date back to a seventh century survey (Bannerman 1974). Further parallels can be drawn from Anglo-Saxon sources like the Tribal Hidage (Davies and Vierck 1974). The point is that men of a certain status were expected to serve in their lord's host as and when they were needed, presumably within certain traditionally agreed limitations regarding duration and location. For instance, in later Medieval Scotland a distinction was apparently drawn between internal hosting and external expeditions, both of which were within the legal obligations of a vassal (Lawrie 1905:320), but which presumably involved different details of service. This military service should probably be distinguished from membership in the lord's personal retinue or comitatus, which seems to have been more or less a full time occupation performed by junior nobles eager to establish their reputations as warriors before coming into their inheritance. Charles-Edwards has suggested that a typical warrior in an Anglo-Saxon warband might have hoped to retire around the age of twenty-five either to an inherited estate or to an estate provided by his lord (1976b:81). In contrast, service in the lord's host by the non-noble freeman may have led to a share of any booty, but was different in nature. The ceorl did not become a permanent member of the lord's household, a resident in his hall, as one of his warriors would have done. Establishing the

actual military circumstances which distinguished these two groups would be interesting, but it is beyond the scope of this paper.

Archaeological Manifestations of Lordship

In some ways analogous to hosting were the duties to build fortifications and the building and maintenance of roads and bridges, which, aside from the obvious material implications, served to reinforce the roles of superior and inferior, leader and led. These fortifications were not of course specialised military installations, but were *the residences* of the nobility, which were elaborately enclosed with stone or earthen ramparts. In Pictland, the existence of the forts is our only evidence of this obligation, but as we have seen the evidence is plentiful. Our appreciation of it may be enhanced by reference to the Irish laws prescribing the appropriate number of ramparts which were deemed suitable for each grade of noble and king. These laws make it quite clear that it was a duty of a lord's clients to construct the ramparts (Byrne 1973:32). While there can be no direct transference of the Irish scheme of so many ramparts for this or that grade of lord (see Warner 1987), it is perfectly fair to conclude that architectural embellishment, whether assessed in terms of rampart bulk or elaboration of design, is an indication of noble status in our period. This holds true if only because more and bigger ramparts require more clients to provide the labour and thus indicate the noble's worth.

The building and maintenance of bridges and roads were part of the service obligations due to a king as early as the seventh

century in Ireland (Byrne 1973:32) and seem to have developed about the same time in England (Brooks 1971). The impressive Viking Age bridges and roads in Denmark (Roesdahl 1982:45-50) have been seen by Randsborg as instruments of royal power (1980:103), and are thought to have been constructed by similar labour services. No Pictish bridges have yet been discovered, but there is some reason to believe that such building projects were routinely considered part of the services of a dependent. Alcock (1981:95) has drawn attention to the statement in the Old Scottish Chronicle that Kenneth mac Malcolm vallavit ripas vadorum Forthin (Anderson 1980:252-3), 'fortified the banks of a ford of the Forth', perhaps the Ford of Frew, which is one of the major north-south crossings in central Scotland. In the Latin notitiae in the Registry of the Priory of St.Andrew's concerning grants made by MacBeth and Gruoch to the community of St.Serf, Loch Leven between AD 1040-1057, we find a reference to the duty to repair bridges (Lawrie 1905:5, 230). Lawrie supposed that this was a later insertion because bridge building obligation were introduced by David I, but as we now know David I was credited with more than he actually accomplished. Many of his 'innovations' can be seen to have earlier origins: for instance, the Scottish burghs (Spearman 1987) and bishoprics (Donaldson 1956, 1985). Therefore this notice of bridge duty could well be authentic and may indicate the existence of a long standing practice.

The third sort of service concerns the performance of agricultural chores for the lord. In Ireland, as we have seen, the lord was entitled to personal services from his clients, which included not only labour for building, but also for sowing

and reaping (Mac Niocaill 1972:65). Similarly one of Jolliffe's pre-Conquest Northumbrian institutions was forinsec work performed on the lord's estate by his dependents (Kapelle 1979:66-9). By comparison with later feudal obligations, these demands seem fairly light, amounting to perhaps ten days work at specific tasks during particular periods of the year. They also seem to have been light in Scotland, where even in the high middle ages it is 'very difficult to find evidence of heavy labour services by bondmen even upon the estates of great religious houses' (Duncan 1975:339). Thus, it was probably the case that if any Pictish lords were owed agricultural labour, it did not amount to more than a few days during the ploughing and harvesting seasons, albeit at the awkward times of the year.

The lord's obligations may be enumerated in a similar fashion, and can also be split into transactions involving material goods and the performance of services. As has been mentioned on several occasions, the initial transaction in Irish clientship was the provision of livestock and other productive resources to the client, and as we have been arguing, land was generally considered as the property of a kin group. However, it is also apparent that access to land was actually controlled by a minority of the group, because we see land being used to promote personal interests. Among the Anglo-Saxons, land was used by lords to attract dependents at the extreme ends of the social spectrum (Charles-Edwards 1976). At the bottom, a truly needy individual might be given the use of some land and a dwelling, the acceptance of which would bind him permanently to the land. At the other end of the social spectrum a young noble, having performed adequately in his lord's retinue, might expect to be

endowed with an estate apparently including a hall, which would give him sufficient resources to retire from active service in the warband and become one of his lord's landed clients. In neither case was the land heritable; in theory it was inalienable and therefore at death it returned to the kin-group, or more precisely to the lord's control. We have no way of knowing whether the first of these situations ever prevailed in Pictland, but it seems inescapable that there was some arrangement whereby loyal warriors were rewarded with grants of estates. The simple existence of thanages suggest as much and any political interpretation of the military exploits, which form such a prominent part of Pictish history, practically requires it.

We know far more about another way in which the nobility used land. In fact, it is through the records of the endowment of churches and monasteries, like the Deer notitiae, that we know most about early medieval land tenure. There are two points to make about the practice. First, estates given to the church were lost forever to the kin-group, so the transactions assume a special quality. Second, it was difficult to accomplish this alienation of the kin-group's assets, and therefore writing had to be mobilized. The motivation for the composition of the Deer notitiae seems to be that the heirs to the alienated estates were wanting them back and the monks were obliged to seek the king's help to hold on to what they had been given. It is my belief that this kind of alienation of the kin's property was one of the crucial developments in the growth of the Pictish kingdom as it was elsewhere in the early middle ages, but to enter into a discussion of the implications of this argument would require a thesis in itself.

Both these uses of land should be strictly distinguished from transactions involving movable wealth, as Charles-Edwards has pointed out. Leaving aside the donation of property to the church which, because it involved permanent alienation, operated in a different fashion, the essence of the distinction is that, as a single gift or endowment, land produced a debt which no recipient, aside from a Beowulf, could ever fully discharge. This is not true of the exchanges of material goods, the movable wealth which the nobility were able to use to create bonds of dependence with inferiors or to cement friendships with peers. Food items, some of them exotic, like wine, and some of them the local products of tribute, were assembled into *the feasts which* were generously sponsored by the ideal lord. The precious objects produced in the workshops of great lords were commissioned so the lord could fulfill his metaphorical role as the profligate ring-giver. These objects which survive in the archaeological record provide us with some of our most evocative images of Pictish nobility, and also provide us with our most precise knowledge of the inter-relationship between the economic and the social order.

The non-material obligations or duties of a Pictish lord would have included providing a certain amount of physical protection: hence the warband, and hence the fortified residence, which above all symbolized the great lord's martial prowess. Whether the locals were permitted to take refuge within the lord's fort is an open question , but not perhaps unlikely if slave-raiding was a significant threat. To judge from the Celtic epic literature war as such was not directed against the peasantry but against their cows or other nobles. One has the impression that until the Vikings democratized war, it was the

concern of the elite: the lord, his warband and on occasion the free commoners. The lord's protection of his community in these circumstances was as much a question of maintaining personal honour as it was of looking after his dependents and assets.

Social relations and Settlement Organization

That a connection between social relations and settlement organization existed cannot be questioned; what is at issue are the details of the relationship. Throughout this thesis, I have followed the precept that the imposition of spatial order on the landscape is a dimension of social *reproduction*. As we have seen, the principal relationships - whether kin-based or client-based - involved undertaking reciprocal obligations, many of which focused ultimately on aspects of agricultural production. The foremost forces shaping the settlement systems were then of an agricultural nature. We must therefore expect to find, within the settlement patterns, systems designed to control and maintain these fundamental relations of production. Whether, given our relative ignorance of the details of Pictish agriculture, we are capable of recognizing more than the vaguest outlines of such systems is another question.

Quite probably the most common figure in the landscape was the least prominent historically or archaeologically. It was the person whose labour contributed the most to the production of food and raw materials, and who may be described as the unfree commoner, the 'dependent' of a lord. There is no way of telling how large a proportion of the population they constituted, nor of telling what degree of economic and social freedom they enjoyed.

However, we may suppose that they constituted a substantial majority and that throughout our period their numbers were increasing as population grew and the middle strata of society shrank with the growth of the dynastic magnates. Whether they were tied to the land in the sense that serfs were is a moot point, since the identification of the kindred with particular tracts of land and the lack of a land market, will have enforced a residential stability. There are, however, signs from elsewhere in Britain that, in certain circumstances, people could be bound to the land. Charles-Edwards has argued that already in seventh century Wessex there were legal arrangements whereby if a man accepted a house as well as land *from a superior* he was in effect bound to that land (1976:186) and Wendy Davies has similarly noted that some men might have been effectively bound to the land in early Medieval Wales (1982:68). In neither case was the condition hereditary. Such a situation may have prevailed in Pictland, and certainly by the twelfth century we hear of men who were bound to the land in Fife (Barrow 1981:17).

Where did these people live? Presumably they lived upon the estates of the nobility or on something akin to later townlands, which were operated by the free commoners. The distinction between an estate and a townland arrangement is probably not one we should press too far in our period, since, as we have seen in section II, any tenants were likely to be of the same kin-group or lineage as their immediate lord. None the less the joint tenancy farm (Whittington 1973:542) may provide a good analogy to the ways in which tenurial obligations were satisfied at the farm level. It may also provide a useful guide to earlier settlement arrangements (cf. Whittington 1973:552ff). It is not clear from

the Irish or Anglo-Saxon literature how tenurial arrangements translated into living arrangements, whether extended families occupied a single farmstead or were scattered around the country side, but, with few exceptions, in the Celtic world they did not cluster in large villages. It may be that such people lived in the small houses which are adjacent to the complexes of enclosures and field systems observed in the aerial photographic record or in the apparently isolated small unenclosed settlements. If these houses were considered part of the estate's appurtenances then the inhabitants may well have been bound to the land in some sense. On the other hand, if these people were occupying the land of their ancestors we may imagine that they had a traditional right to draw their livelihood (and their lord's livelihood) from the land, and so were precursors of the later township organization.

It was the social relations within the estate or township which determined the organization of the fields. As we have seen in Section III, although it is possible in specific instances to argue that strip cultivation respects or overlies a settlement site, we are not in a position yet to generalize from aerial photographs about the origins and development of open fields. Dodgshon makes an interesting case for regarding the shareholding system in which strips of arable were periodically re-allocated to the shareholders, known in Scotland as run rig, as a device introduced as a means of maintaining a stable distribution of land in circumstances when the area of land under cultivation was being expanded (1975). It should be pointed out that the terminology used in medieval documents suggests that run rig was prevalent south of the Forth and that north of the Forth land was

cultivated in unified blocks. This, at any rate, is Barrow's conclusion drawn from the observation that the davoch, the favoured measure of arable capacity, had fixed boundaries; he takes this to mean that the plots of ground were cultivated as a unit (1962:130-4). It is not clear, however, whether that land was cultivated in blocks in Strathearn: the term davoch is rarely used in relation to that valley, and the evidence for strip cultivation, while undated, is prominent in aerial photographs. On balance it seems as though Strathearn, rather than the Forth, may have been the divide between two forms of agricultural practice and estate management. If this was so then the strip cultivation we see there may well go back to the early medieval period.

Dodgshon detects the earliest indications of shareholding in thirteenth century charters (1975:23), but of course this cannot be regarded as the origin of the practice in view of the scarcity of earlier medieval documentation. His arguments about the origins of run rig rest ultimately on two points: a) the assertion that scattered strip cultivation is inconvenient in comparison with nucleated blocks, and b) the evidence that the share system allowed the big land owners to claim a share of newly assarted lands, thereby maintaining their relative dominance over the arable resources. Logical though this seems, we are left with the unresolved question of who regulated such a system. Doherty has noted that division of arable into strips was established by the time grants of land begin to be made to the Irish Church, and implies that this may have been occurring by the eighth century - itself a time of agricultural expansion (1982:308). Doherty goes on to say that the church had the 'power

to redistribute land to tenants' (ibid:318). If we take the Church as a typical landowner in this respect, it implies that other land owners of free status had this power. What I think this means for the unfree tenant was that, although they might have a right to farm in the fields of their ancestors, that right did not entitle them to much control over where and how they farmed it. It may be that we should see run rig as a product of a system in which the most dependent tenants had little control over the land at all. This is not the same thing as saying that run rig represents a communal attitude to land tenure with everyone holding a fair share (see Whittington 1973:536-50). Far from it. Run rig represents an authoritarian attitude to land access, in which you took what you were given.

The people with this authority over the use of the land, the peers of the English ceorls and Irish free commoners should probably be identified with the holders of the pett-units. If the analogy between the ceorl and the hide can be extended to Pictland then it seems that the Pictish equivalent to Bede's 'land of one family' was the davoch. There is certainly an intimate relationship between the the terms davoch and pett, which Barrow (1962:133, 1973:59ff, 1981:15ff) and Jackson (1972:118) have both commented upon. While both words are directly concerned with the division of the landscape, davoch is ultimately a measure of productive capacity, while pett is concerned with the organization and location of settlement. The terms cannot be reconciled entirely; they do not correspond exactly. Nor should we expect them to. The term pett probably referred to holdings which varied considerably in extent and fertility, as we know from the Domesday Book was the case with

the soke in Yorkshire (Kapelle 1979:76). As mentioned earlier Barrow has drawn attention to instances where a davoch bears a pit- place-name and he takes this as an indication that the typical pett consisted of a davoch. He extends the argument and identifies the davoch and the pett as the holdings appropriate to a free commoner, bearing roughly the same social status and responsibilities as the English ceorl (1973:59ff, 1981:15). Given that the davoch represented an area of something on the order of 400 Scotch acres (Whittington 1973:543) we can well imagine that a good number of tenants would have been required to operate a pett. For this reason the proprietor of a pett should probably be considered as a minor lord at least with respect to his own estate and tenants. This would help to distance the freeman from phrases like 'prosperous farmer' or 'free peasant' which obscure the power over land and tenants he must have had and generally make him seem less important and privileged than he was.

The word pett, meaning 'portion' clearly implies it was part of a larger entity. This meaning may derive from the pett being a portion of the kindred's territory or part of a multiple-estate made up of discrete elements, or it may derive from being part of a larger administrative entity like the thanage. These three alternatives need not conflict and the most economical explanation would be to draw them together. When the thanage appears in the historical record in the twelfth century it is a large multiple-estate, which was managed for the the king by a member of the nobility. Thanages, or shires as they were known south of the Forth, were important instruments of royal administration. They were the units for the collection of royal cain and conveth, for the organization of military service and

for the administration of justice - in all these respects they closely resemble the Northumbrian shire. The thanage also seems to bear a structural resemblance to the 'multiple estate' as described by Glanville Jones (1976, 1984). The thanes who ruled the Scottish shires resemble their English counterparts in being royal officers who in exchange for an estate (presumably a pett within the shire) carried out administrative duties varying from tribute collection and military organization to maintaining order. The English thane's title to his estate was not in perpetuity: he was liable to heriot, and in legal theory the estate reverted to the lord upon the thane's death. However, despite the Northumbrian resemblances and the English terminology Barrow argues that these institutions - thane and shire/thanage - are English in name only and that like davoch they grow out of pre-Norman roots and ultimately Pictish seeds. The strongest argument supporting a Pictish origin is that based on distribution (see figure 4.3, Muir 1975).

Skene himself recognized that thanages were situated 'in those eastern districts which formed originally the seat of Pictish tribes, and afterwards fell under the dynasty of the Scottish race' (1890:242). The argument for a Pictish origin goes as follows. Since there are no thanages in the west, it seems unlikely, to say the least, that they were introduced by the Scots. The thanages closely resemble Northumbrian shires, but the Anglo-Saxons cannot be directly responsible for their common occurrence north of the river Forth and especially north of the Tay. Therefore, they must have grown out of local political circumstances in Pictland, but not unique circumstances since similar institutions grew up in England and Wales. The shared

terminology with the English, introduced perhaps in the tenth century (Barrow 1973:64), only serves to underscore the close cultural links extending along the northeast coast of Britain.

We are now in a position to look at how these social arrangements were manifest on the ground in Strathearn.

Chapter 14

Modelling the Settlement System

As we have seen the shire or thanage is the earliest organizational unit below the level of kingdom that we can now detect. It gave to the notion of a hierarchy based upon tribute payments a physical reality, and as such provided the framework for the smaller constituents of the settlement pattern. In this chapter we will consider three topics which have a bearing on our model of the settlement system in Strathearn. Firstly, we will attempt to construct an idealized thanage by drawing together the available historical information. Second, we will examine the better documented thanages in detail comparing them against our model as we go. And finally, we will present a general summary which should help archaeologists to examine the validity of these historical and social interpretations in the field.

The Ideal Thanage

There can be little question that the organization of a thanage was hierarchical and that at its heart, or rather at its head, was the principal residence of the thane or other authority. Conventionally this principal residence is called a caput; we do not of course know that this Latin term was used of these places in early medieval Scotland, but it will be convenient for us to use it. Although it was not necessarily a fortified stronghold, the best examples of a caput, Dundurn and Clatchard Craig, were fortified and can be recognized by the combined evidence for agricultural, military, and manufacturing activities in conjunction with a noble residence. Similarly, it

seems likely that many of the unexcavated type III forts also served as the head and heart of the thanage. An appreciation of the dominant organizing role of fortifications can be gained from the place-name evidence. Barrow identifies several thanages containing the P-Celtic element cather, which comes from the same root as the Welsh caer, 'fort', and Old Irish cathir, 'city' or secondarily 'monastery'. In the two cases from our area, Cathermuthel (approximately Muthill parish) and Catherlavernach (originally Strageath, then Blackford parish) (1973:65-6), it would appear that the whole thanage drew its identity from the principal settlement, the caput. Incidentally, these cases illustrate the two alternative meanings of the word cather. At the geographic centre of Catherlavernache is the fort at Loaninghead, while in Cathermuthel, the cather probably refers to the religious community, what in contemporary Irish texts might have been described as a 'monastic city'. This is not to say that the Céli Dé community did not occupy the site of a fort or that there was no fort in the thanage (the Crina Hill fort falls within the parish), but it does indicate a possible variant meaning of the word. The practice of endowing early Irish monasteries with ringforts and their associated lands is well known and a similar practice seems to be recorded in the Book of Deer. In the first Deer notitia the local mormaer offers Columba and Drostan the cathir of Aberdour which they rejected; he then offered the saints the cathir of Deer, which they accepted for their monastery. To translate cathir by monastery as Jackson (1972) does is to assume that monasteries were common by Columba's day or at least to assume that such was the understanding of the Deer scribe. Barrow has suggested that in

this context it is more reasonable to translate cathir as 'fort' instead (1973:65-6); but perhaps it would be even better to use a more neutral term since, as we will see, not all thanages can be shown to have had a fortified caput. It may be that Cathermuthel refers to the site of an as yet unrecognized fort, but perhaps the foundation of the community was not a fort. At any rate the ambiguity underscores the suggestion that the caput of a thanage had more in common with the great house of a large estate than with a fortified garrison, despite being frequently ensconced in ramparts.

The possibility of twin centres in Cathermuthel (figure 4.4), at the religious house and at Crina Hill, alerts us to the danger of seeing the organizational structure of the thanage as a rigid pyramid. The presence of one prominent site within the thanage does not preclude the existence of another. In addition to geographic factors which may have led to the development of two 'centres', there are political considerations. One can easily imagine that a thanage might contain powerful lords in addition to the royally appointed thane. The possible variations on this arrangement are too numerous to bear enumerating. It may be that the existence of more than one centre in a shire was one of the factors which mitigated against the formation of villages, in addition to other factors which encouraged a dispersed settlement pattern. Administrative methods, even after the introduction of writing, still encouraged a peripatetic lordship, but probably more than anything else the difficulties of moving agricultural produce overland discouraged centralization. This will have been true for livestock as well as grain, for two reasons. First, droving cattle long distances does not improve their condition

and, secondly, all major land owners will have needed their own pasture. As we have seen, even sites with royal associations like Dundurn seem to have been actively involved in stock raising, so we should imagine that their occupants, like lesser farmers, had need for a considerable amount of pasture, given that hay making does not seem to have been a traditional Scottish practice (see above Section II).

The institution of the shire can be said to have worked on two levels. It served to define or order a territory within which were found men who owed services and tribute to a lord. At this level the shire served to integrate the interests of the primary producers and the local aristocracy (and here I am including the church as an element of the aristocracy). At another level the thanage served to articulate the interests of the local aristocracy with those of a regional or national lord. It is at this second level that the thanage has exercised the attention of most historians, and not surprisingly since there exists ample justification for studying the thanage in terms of a proto-feudal institution. The formalization of the social and political relations described by thanage certainly was a key step in the making of the Scottish kingdom. However, if we are interested in understanding the order behind the random scatter of settlements within the thanage, it is at the level of local economic and social relations that the thanage must occupy our attention.

If the great residence or monastery was the head of the thanage, its body consisted of fields and farmsteads. Not only were there differences in land usage, but direct control of the land seems to have been distributed among various farms. The thanage was evidently made up of (or subdivided into) portions,

which, among other things, allowed individual farmers to pay closer attention to the farming. The portions are of course the pett places which have given us the settlements bearing pit-place-names. One conclusion to be drawn from the distribution of pett place-names is that this particular system of land division and management was a pervasive feature of Pictish culture, so much so that linguists should seriously consider Maxwell's suggestion that the name Pict derives from their characteristic land division the pett (1987:32-3).

It is also true to say that we know little about the internal composition of a pett or about the social conditions which gave rise to it, other than what may be inferred from later documents; hence the importance of trying to discover its physical attributes archaeologically. As we have said, Barrow believes that north of the Tay land was cultivated in continuous parcels and that the pett was perhaps equivalent to the davoch or about 400 acres of arable; but we have also seen that in our area, land was cultivated in strips implying that the pett was subdivided and cultivated by several tenants. My own feeling is that these two interpretations need not be antagonistic, and that while the pett may have been thought of as a concrete parcel of land it could also have been subdivided into strips. The reason for this is that 400 acres, as Barrow points out, is far too much land for a single household to have cultivated given the available technology. We are therefore required to postulate the existence of either tenant farmers or labourers, who most likely would have been kin of the principal farmer. Just how this worked economically is impossible to say for certain, but it would not be unreasonable to imagine that a system of obligations and dues,

similar to those recorded for lords and clients, existed also at this more lowly level.

Whittington's arguments regarding the possible antiquity of joint tenancy farms are interesting in this respect (1973:542); his study of Scottish field systems is noteworthy for other reasons. Firstly, he provides a clear model of the spatial arrangement of infield, outfield and moorland, which should be applicable to the earliest two-field system and may be appropriate for our period. Whittington, however, makes no claims for the antiquity of his infield-outfield model and quotes Barrow to the effect that, 'there is no indication in early documents of any system of infield and outfield cultivation, although the texts are not incompatible with the existence of such a system' (1962:127). Essentially Whittington's model is concentric,with the settlement located within or at the edge of the infield core, the intensively cultivated land. This is surrounded by outfield, portions of which were cultivated in rotation and is in turn surrounded by permanent pasture and moorland.

A second notable feature of Whittington's study is the way this infield-outfield model can be integrated into the large agrarian system. He has worked the model out in considerable detail on the Pitkellony estate in Muthill parish (ibid:552-67). His evidence is neccessarily late, post-medieval in fact, but as a starting place for appreciating a pett on the ground and for visualizing its internal arrangements this work on the Pitkellony estate is unsurpassed. Clearly, as our knowledge of early medieval agriculture grows, this model will prove a valuable point of comparison.

We have in the aerial archaeological record three kinds of

settlement which might be taken to mark the principal farmstead of the pett. They are the complex enclosures of which Balgonie is the most spectacular; the simple ringfort, like Lochlane, which are reminiscent of the fortified thanage caput; and the small unenclosed settlements of ring-ditch houses, like that at Easter Clunie. It seems clear enough that the entire population of a pett did not live in a nucleated settlement about the principal farmstead. Even the densest sets of cropmarks rarely suggest any agglomeration of dwellings which might be termed a hamlet, and when one allows for a degree of settlement shift and rebuilding these are doubtful as population concentrations.

We can therefore cautiously suggest that a pett consisted of scattered farmsteads, some of which may have been built on too slight a scale to be archaeologically visible, and probably including at least one relatively substantial or elaborate farmstead. Given that constructing an enclosure ditch or wall is one of the few architectural techniques for aggrandizing a settlement, it seems reasonable to propose that the principal settlement of a pett was a ringfort or in exceptional cases a more complex enclosure. However, given that these are about the only architectural techniques for elaborating a site which we can observe without excavation, this should be taken with a grain of salt. What we are proposing, then, is a model of the pett that is a miniature of the shire, or rather the reverse, that the shire took its form from a pre-existing structure found in the pett. In fact since even places like Dundurn yield evidence of farming activities, we could consider that the thanage caput was a particularly successful pett that managed to achieve a sort of overlordship over adjacent petts. These were then rationalized

into shires and parishes at a later date.

We are, if anything, less able to describe those things which are conventionally thought of as composing the landscape. For instance we are unable to say what proportion of the fields was arable and what was pasture, or how much of the valley was given over to woodland. We might imagine that woods, copses and orchards, as well as stretches of permanent pasture acted as boundaries between _petts_, but there is no supporting evidence beyond the presence of timber, wattle and fruit on a particular site. Similarly, it is likely that some sort of infield-outfield system was used with the intensively cultivated land closer to the settlements, surrounded by pasture, woods and beyond those, common grazing. But, beyond the early notices of common grazing, the evidence is late. For what it is worth, Whittington's infield-outfield model indicates that a common arrangement was one portion of infield to three of outfield, but since only a quarter of the outfield was likely to be under cultivation in effect half the arable was under crop at any one time (1973:544,551). In addition to this there was considerable permanent pasture. We can go on to suggest that at higher elevations a greater portion of the land was given over to pasture. But, as with the structure of the _pett_, most of this is informed speculation. No doubt then as now decisions about the details of land use - what areas make the best pasture, where best to locate the barley fields and so on - were made by those with an intimate understanding of the local soil conditions, drainage and other factors. So although there can be little doubt that the _pett_ occupied the best land available, it is impossible to make meaningful generalizations about the exploitation of the

available resources.

The final component of a thanage has been discussed only in passing, but it seems to have been a focal point for shire administration as well as being significant in the formation of the identity of the shire. I am referring to those ceremonial centres which served as meeting places, the place to hold popular courts and the sites of quasi-religious inaugurations to high office. The prime example of this is of course Moot Hill at Scone, but there are good reasons to believe that, while this mound was pre-eminent, it was not unique. In fact, to judge from regional studies, it seems that court hills or meeting places were a common feature of the political landscape of early medieval Britain and Ireland, suggesting that every autonomous political entity possessed one. As the political scene gradually came to be dominated by fewer and fewer kingdoms, so it seems that certain meeting places, associated with the ruling dynasties, like Scone, came to prominence, while the majority slipped into obscurity. The majority of lesser meeting places must have continued to function at a local level for some time, since they do manage to survive in oral tradition late enough to be recorded. For instance, Watson quotes the Old Statistical Account regarding the survival of one such meeting place: 'there is a large artificial mound of earth, where in ancient times courts were held; near to which the Duke (or rather Mormaer) of Lennox had a place of residence' (1926:223). The residence survives as Catter (from cathir) near Kilmarnock, and Watson identified the meeting place with a reference in a charter to forcas nostras de Cather, 'our gallows of Cather' (ibid:223). We will return to this use of gallows to mark a meeting place.

There has been no systematic survey of the evidence for these sites in Scotland, but Barrow has looked in detail at one of the place-name elements which he believes indicates the location of popular courts in early medieval Scotland (1981b). The place-name generally survives in modern usage as Cuthill or a variation of this; its suggested etymology is from Gaelic Comhdhail (Old Irish, comdál), 'assembly', 'meeting', 'conference', 'tryst' (ibid:3). The distribution of these places complements that of the thanage, and indeed of pit- place-names, although it is less common than either. Barrow's observations about the geographical situation of these sites is of particular interest:

> That the meeting-places indicated - if, indeed, they are indicated - by the Cuthill element had an antiguity comparable with the hundred, small shire and wapentake meeting places in England is strongly suggested by their geographical association, in an appreciable number of cases, with major pre-historic monuments, especially cairns, stone-circles and standing stones. Moreover, in the case of [seven examples given] the cuthill name is associated with the holding of courts and with punishment (ibid:10).

There are no cuthill names in Strathearn, but the associations with prehistoric monuments is of some significance for our attempts to ascertain the meaning of ancient monuments in early historic times.

Elsewhere in Scotland, the survey of Mid-Argyll by Campbell and Sandeman revealed a dozen cases which could be supported by references of varying degrees of antiquity and credibility (1962:89-91). This scatter of meeting places forms a back drop for the arguments that Dunadd was one of the major meeting places in Dal Riada, which saw royal inaugurations (Thomas 1879). In Ireland, Warner has drawn attention to the close association between such meeting places and royal residences (1987). The

close physical association between the royal residence and such meeting places is important, but we should perhaps play down the royal aspect in favour of noting their ubiquity and local importance. Although it seems that prehistoric burial mounds were on occasion used as meeting places, they were also clearly purpose built at Catter and Clougher, Co. Tyrone, and also it would seem by the Anglo-Saxons. The excavators of the Secklow Hundred mound in Buckinghamshire discovered a low purpose-built mound constructed in perhaps the tenth century which contained no funerary deposits (Adkins and Petchley 1984). They compared it with a dozen other similar mounds elsewhere in England, which excavations also have proven to be artificial. They drew attention to the ample place-name evidence for such meeting places and suggested that they were a common feature of Anglo-Saxon England. In this context, it is perhaps worth questioning the Ordnance Survey field officers conclusions that the Moot Hill at Scone was a natural, not artificial, mound (OS record card).

In our study area, there is a conjunction between the presence of prehistoric ritual monuments, royal residences and major meeting places in two locations. Whether this should be taken as a general pattern is too soon to say, but it may prove a useful rule of thumb, since these meeting mounds would be otherwise impossible to distinguish from a burial mound without excavation. That they formed a key element of the thanage seems plain enough: the administrative duties of the lord of the shire will have demanded such a facility.

To sum up, the model thanage included: a caput, possibly fortified, a number of pett elements, and a meeting place or ceremonial centre. With this theoretical framework in mind, we

can now see how this holds up under comparison with thanages in Strathearn.

The Archaeology of Thanages

It will be clear from the preceding discussions that the most influential recent study of the pre-feudal shires and thanes of Scotland is the long essay published by G.W.S. Barrow in 1973. In that essay he had frequent occasion to discuss places in Strathearn, because he made heavy use of the charters compiled in the Inchaffray Liber and the Lindores Chartulary. A notable feature of that paper was the presentation of reconstructions of 'conjectural shires', three of which are in Strathearn (see figures 4.4, 4.5 & 4.6). These maps appear to have been intended primarily to illustrate the extent and composition of a pre-feudal thanage. Without knowing how they were compiled - Barrow does not describe his methodology - it is difficult to assess the exact historical intentions behind the maps. It looks as though Barrow has culled the place-names from the charters and other, more recent sources and placed them within the modern parish boundaries with little or no modification. It is important to note that Barrow makes no claims for the historical precision of the maps and indeed only refers to them in passing, nor does he use this geographical information to construct any specific arguments about the nature of the thanage. The maps provide illustrative support for the verbal argument. None the less one is bound to feel that Barrow would not have bothered presenting the maps if he did not think them a valid representation of a pre-feudal shire.

A minority of the places included on the maps has contemporary medieval references, but the remainder, we must assume, have been included for good linguistic reasons. Likewise we must accept the implicit assumptions that the modern parish boundaries are in reasonable agreement with the charter evidence. Given that parishes in Scotland began to adopt their current shape by the twelfth century, at the latest, this seems acceptable. There is a further assumption that, in the case of the old unchanged parishes, like Muthill, the thanage boundaries coincided. In some cases, it is possible to show that recent changes have taken places in the parish and here, *of course*, it is not reasonable to make the equation, but for the most part it does seem legitimate to assume that parishes and thanages shared more or less the same boundaries. Indeed, elsewhere Barrow has pointed to Clackmannan and Kinross as examples of the resilience and longevity of the thanage as an administrative unit (1981a:16-17), so he is certainly happy with these assumptions. Even so, certain areas of uncertainty are indicated in the illustrated boundaries of the Strathearn thanages. These doubts notwithstanding, the maps provide a wholly adequate backdrop against which we may place the archaeological evidence.

In addition to these three intensively studied Strathearn thanages, Barrow has also identified thanages elsewhere in the valley at Forteviot, Dunning, Scone and Strowan. When we turn to examine the archaeology of these places we will follow Barrow's lead in using the parish boundaries as a guide to the extent of the thanage, when there is reason to believe that the parish has remained intact.

Abernethy (NO11NE, NO21NW)

Relatively early references to the territorial extent of Abernethy survive (Anderson 1980:95), but these are fairly vague and, in any case, are much more restricted than Barrow's conjectural shire (figure 4.5). The caput of Abernethy must have been the religious house for which there is so much archaeological and historical evidence, but if Barrow's reconstruction is correct Clatchard Craig also fell within the shire. There is good reason to believe that the two sites were occupied contemporaneously, although Abernethy certainly lasted longer. It may be that the religious house gradually made the fort redundant or it maybe that the fort survived through to the end of our period; the dating evidence is inconclusive on this point. However that may be, it is certainly the case that the fort did not survive long enough to pass on its Pictish name; Clatchard Craig is completely Gaelic (Close-Brooks n.d.).

The map of the shire effectively illustrates the density of P-Celtic place-names including the eight pett names in the immediate neighbourhood of Abernethy itself. In several cases it is possible to point to cropmarks which one might wish to identify with the settlement bearing the ancient name: Aberargie, Balgonie, Carpow and Clunie. It is also worth pointing out the limitations of aerial reconnaissance with respect to the place-name distribution. Given the small amount of upland flying being done in the area, it is unlikely that such close associations with the pett places in the Ochils will be discovered. The occurrence of pett places apparently belonging to the shire, but located in these less favourable situations points to a pattern which recurs in other shires. Evidently the ideal shire

encompassed a wide range of topography thereby taking in a wide range of resources.

There are no obvious places which might be regarded as the shire meeting place other than the church itself, which did host one of the more dramatic meetings in Scottish history, the one between William of Normandy and Malcolm Canmore in 1072 (Kapelle 1979:139). At the moment no conspicuous clusters of prehistoric ritual monuments are known in the shire.

Catherlauenach (NN90NW, NN91NE, NN91NW)

According to Watson the place-name means 'Elmfort' and refers to the district focusing on Tullibardine (see figure 4.6), which aside from a pre-reformation chapel has no *obvious* antiquities. Like Abernethy, this shire runs south from the Earn and into the Ochils, but it extends further and takes in Gleneagles and the eastern part of Strathallan. The nodal point of these three drainage systems is occupied by the fort at Loaninghead. We have discussed in Chapter 12 the conjunction of cropmark sites and other ancient features, which occurs at this point, and in the light of these and the layout of the shire it seems reasonable to associate Elmfort with Loaninghead.

A question remains about the nature of the relationship between Catherlauenach and Tullibardine. It may be that by the time the charter to which Watson refers (1926:223) was composed the Elmfort had gone out of use, so that in describing the shire the scribe at Inchaffray was led to focus on the still active chapel at Tullibardine.

The patch of ground between Manchany water and the Earn near Kinkell bridge is among the most productive in the valley for

cropmarks. Aside, however, from a chapel dedicated to St. Bean at Kinkell (Skene 1887:404-5), it is not particularly well endowed with early place-names. We cannot therefore propose the sort of identification between early place-names and cropmarks which were made in Abernethy. Nevertheless the intensity of settlement is evident and their dispersed character can be seen quite clearly. It is also in this land bounded by the two rivers that the North Mains henge, containing the Christian burials, and various Bronze Age cairns are located. The monumentality of some of these sites is comparable with those at Forteviot and Blairhall, but they are far less extensive. Whether this was a shire meeting place is unknown.

Cathermothel

Archaeology has little to contribute to Barrow's reconstruction (see figure 4.4), other than to suggest the possible existence, mentioned above, of the twin caputs at Muthill and Crina Hill, which may be explained by the topography of the shire. Cathermothel consists of two areas of good arable, one just south of the Earn and the other in Strathallan near Braco. These two areas are separated by the Muir of Orchill. Muthill and Crina Hill are ideally placed to service the two areas separated by the common grazing area of Orchill. As was said, the most intensive on-the-ground study of early Scottish field systems focuses on the Pitkellony estate maps of the mid-eighteenth century and later (Whittington 1973) and is of considerable interest for understanding the microtopography of this thanage, although it cannot be linked with any specific archaeological evidence of settlement.

We could repeat this exercise with each of the thanages in the valley or even with each parish, but since the detailed place-name studies are lacking it seems best to just mention the salient features of the other thanages, beginning with the best known and moving on to the more obscure.

Forteviot (NO01NW, NO01NE)

Within the parish we can locate all the elements of the shire, excepting the productive ones. The historical evidence suggests that the caput was near the modern village, but the best candidate on archaeological grounds is the Jackshairs fort near the eastern boundary of the parish. There is little place-name evidence indicative of the division of the shire into pett places; this may be fortuitous or it may indicate that royal shires were organized differently. The ceremonial aspects of the Forteviot cropmarks have been sufficiently discussed above, but it is worth drawing attention to the place-name Gallows Knowe, which lies upsteam and west of the May Water from the main concentration of cropmarks. Here, too, are abundant cropmarks, mostly of an agricultural or domestic nature. Elsewhere the gallows place-name element has been associated with a court site or meeting place. It is interesting that it lies on the opposite side of the ritual monuments from the village itself with its presumed royal palace.

Scone/Inveralmond

The problems with these sites have been extensively aired already. Here we cannot even follow the method of examining the

evidence within the parish boundaries, because they certainly post-date our period. Aside from the disruptive impact on the Parish structure caused by the development of Perth, the foundation of the Augustinian community at Scone in the early twelfth century will have reshaped boundaries. We know also that a pre-reformation parish, which was centered on the lower Almond, has disappeared (MacKinlay 1914:487-8). Given these radical changes in the parish boundaries, which took place after our period, there is no reason to suppose that the parishes as they now stand have any pre-feudal integrity. Moreover, given the special nature of Scone, it would not be surprizing if it did not conform to the patterns common elsewhere. This is not to say that there are any obvious aberrations: on both sides of the river near the Almond mouth, all of the various elements of the model thanage can be found. In fact they appear to be duplicated, so that a good case could be made for the existence of two separate shires based upon the repetition of components and the tendency for parishes to respect boundaries established by major rivers.

Dunning (NN91NE, NØ91SW, NØ91NW)

Once again Dunning emerges as the prime example of how aerial archaeology can enhance our understanding of the early historic landscape. In addition to helping to locate the caput of the shire on Dunknock, aerial photography revealed other elements of the thanage. As at Abernethy, the pett places extend southwards into the hills. There are, on the other hand, only a few obvious P-Celtic names in the alluvial areas north of the village towards the river. This scant place-name evidence is, however, bolstered by the scatter of settlement sites in the

aerial record. The one apparent correspondence of cropmark features and a P-Celtic place-name provides a unique insight into an early land use. At the Haugh of Aberuthven, the funnel shaped ditches suggest that the riverside meadows were used as pasture. It is a finding which should not surprise us, since these same fields are liable to flooding even today. Additionally aerial photography has revealed at Leadketty a complex of Neolithic monuments including a Meldon Bridge type of pit-defined enclosure adjacent to a possible causeway camp and henge. Such a concentration of prehistoric ritual features could point to the general location of the shire meeting place.

Obviously these suppositions about the location of the caput, farms and ceremonial centre all require further investigations of an archaeological nature, since they are unsupported by any specific documentary evidence.

Strowan

This parish lies to the west of Crieff in an area not well served by aerial reconnaissance, nor are the parish boundaries intact since the unification of Monzievaird and Strowan into a single parish. Without documentary research to reconstruct the original parish, there is little definite that may be said about this thanage. The heart of the parish seems to have been by the church and holy well located next to the Earn, midway between Crieff and Comrie. Directly across the river from the chapel site lies the fort Tom A'Chaistel, the traditional seat of the Earls of Strathearn. Although they are on the opposite sides of the river, the fort and chapel may have been part of the same thanage since the valley is narrow at this point and the river is not too

broad. The two instances of Trowan place-names on the north bank might be taken to support such a suggestion. The only other point to note here is the presence of the putative long cist and barrow cemetery at the Carse of Lennoch about 2 km west of the fort on the north side of the river.

The Model Shire

In this summary I will try to draw together the particular observations made on the archaeology and history of Strathearn and add more general observations about the social relations encapsulated in the pre-feudal Scottish thanage. By so doing I hope to make explicit the social importance of specific archaeological features. This exercise is necessarily reductionist, but any over simplification should be weighed against its value as a statement against which future findings may be compared.

We begin with the land itself. The thanage typically stretched across several ecological zones, from riverside meadows to hilltop moorland, and included a fair proportion of good agricultural land. The main business of its inhabitants was farming crops and raising livestock. This business was carried out in farmsteads that were dispersed across the shire.

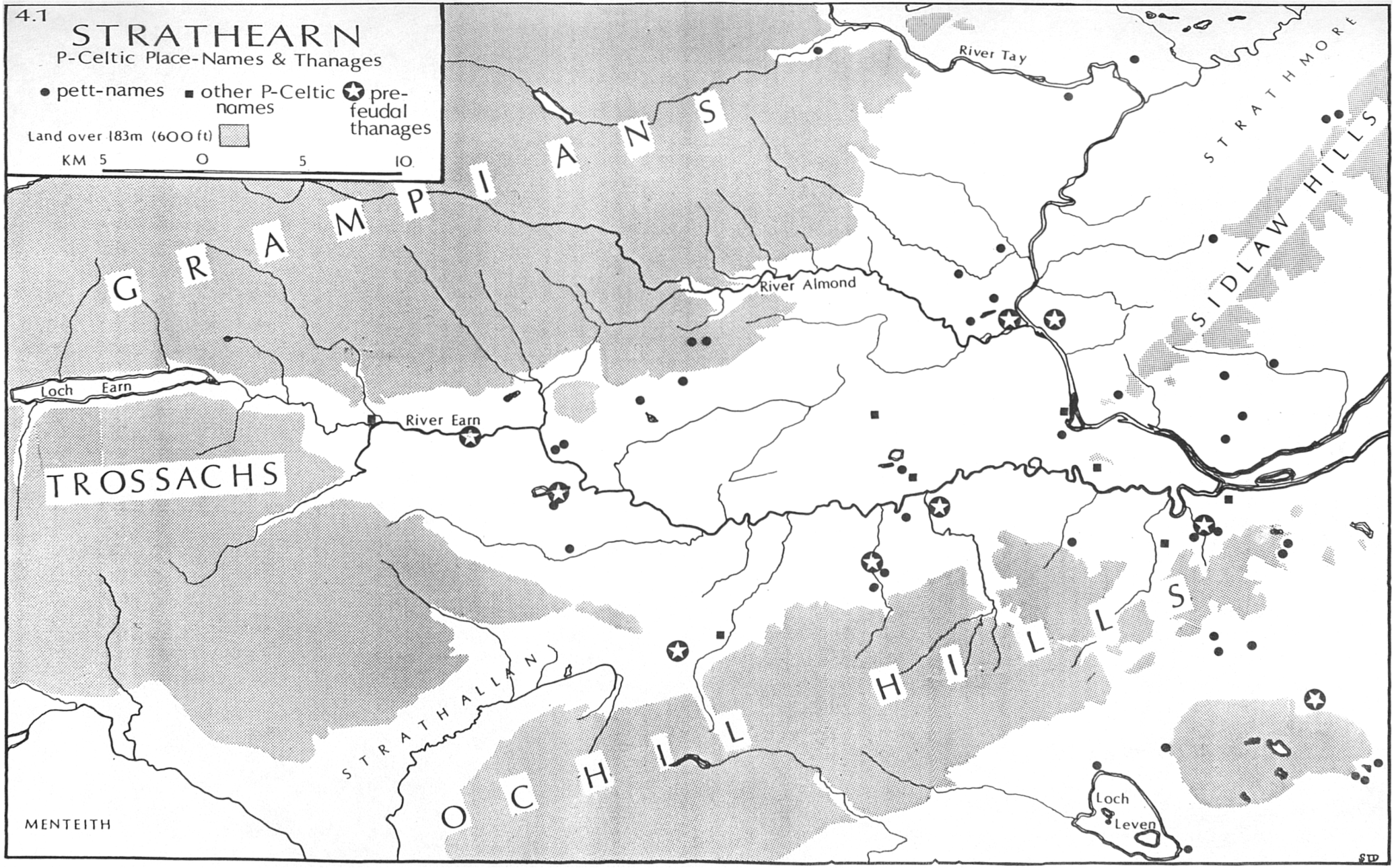
Three broad levels of society may be distinguished in the archaeological record. In population terms the most common were certainly the dependent commoners; archaeologically their presence is hardest to detect. We may attribute to them the small unenclosed settlements of ring-ditch houses, perhaps with souterrains, but even this may be assigning them overly grand

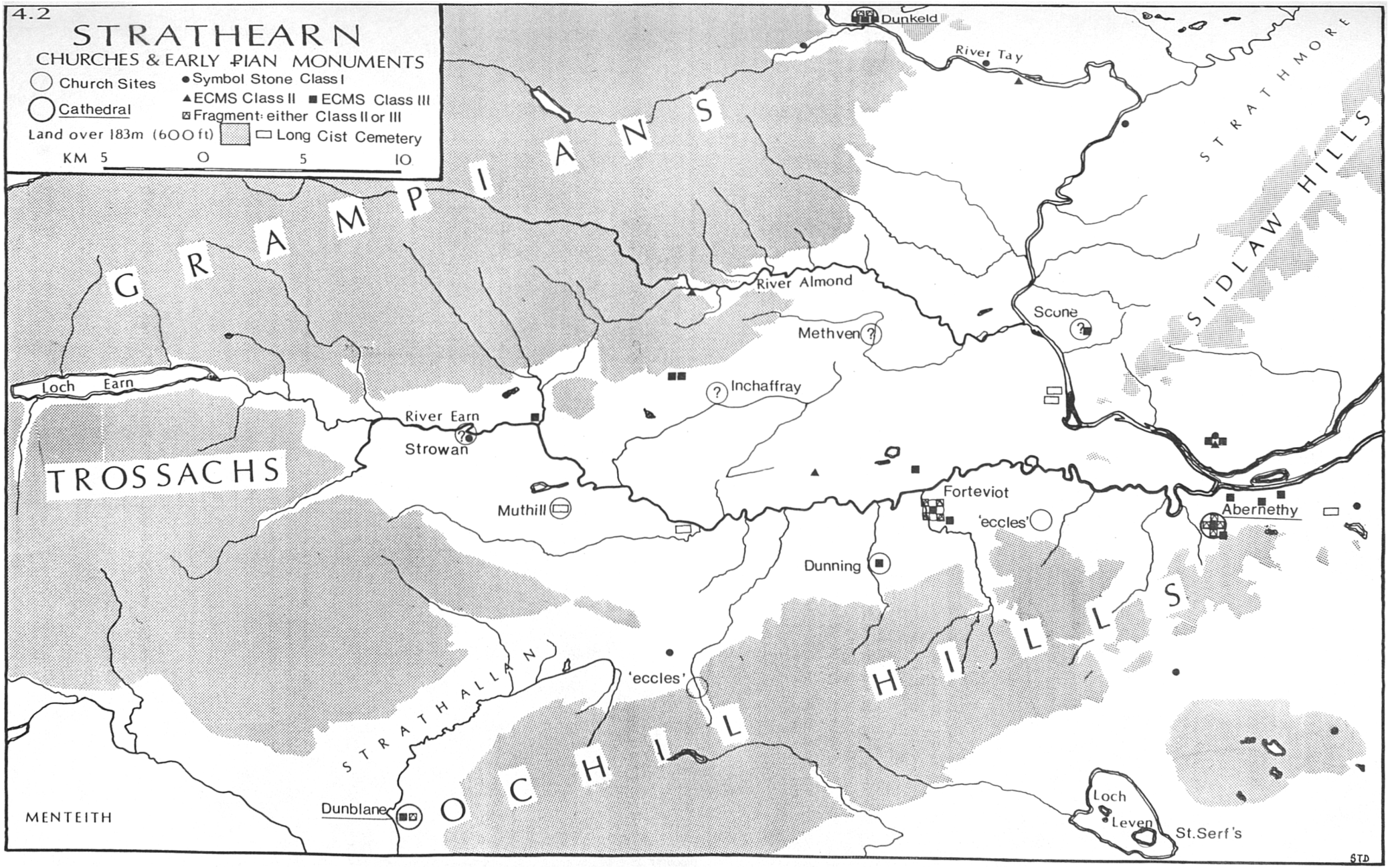
accommodation. It is quite likely that their houses were too flimsy to detect archaeologically, although their handiwork in the laying out of fields and the construction of the lord's ramparts is evident enough. The free farmer to whom the dependent farmers probably owed food rent and services occupied major farmsteads, some of which were termed pett. Archaeologically these are likely to include some of the smaller enclosed farmsteads which survive almost exclusively as cropmarks. In exceptional cases these may have developed into the more elaborate structures termed 'complex enclosures' in preceding chapters. The occupants of these more elaborate structures may have included minor members of the nobility or at least those who served as the heads of their kin-group. The caput of the shire could assume several forms. The most common was the small hillfort with several closely spaced ramparts. Other possibilites included religious houses and, rarely, unenclosed royal palaces. The principal authority of the shire will have assumed the type of residence appropriate to his social affiliation. Not surprisingly this last level is the best represented in the archaeological and documentary record.

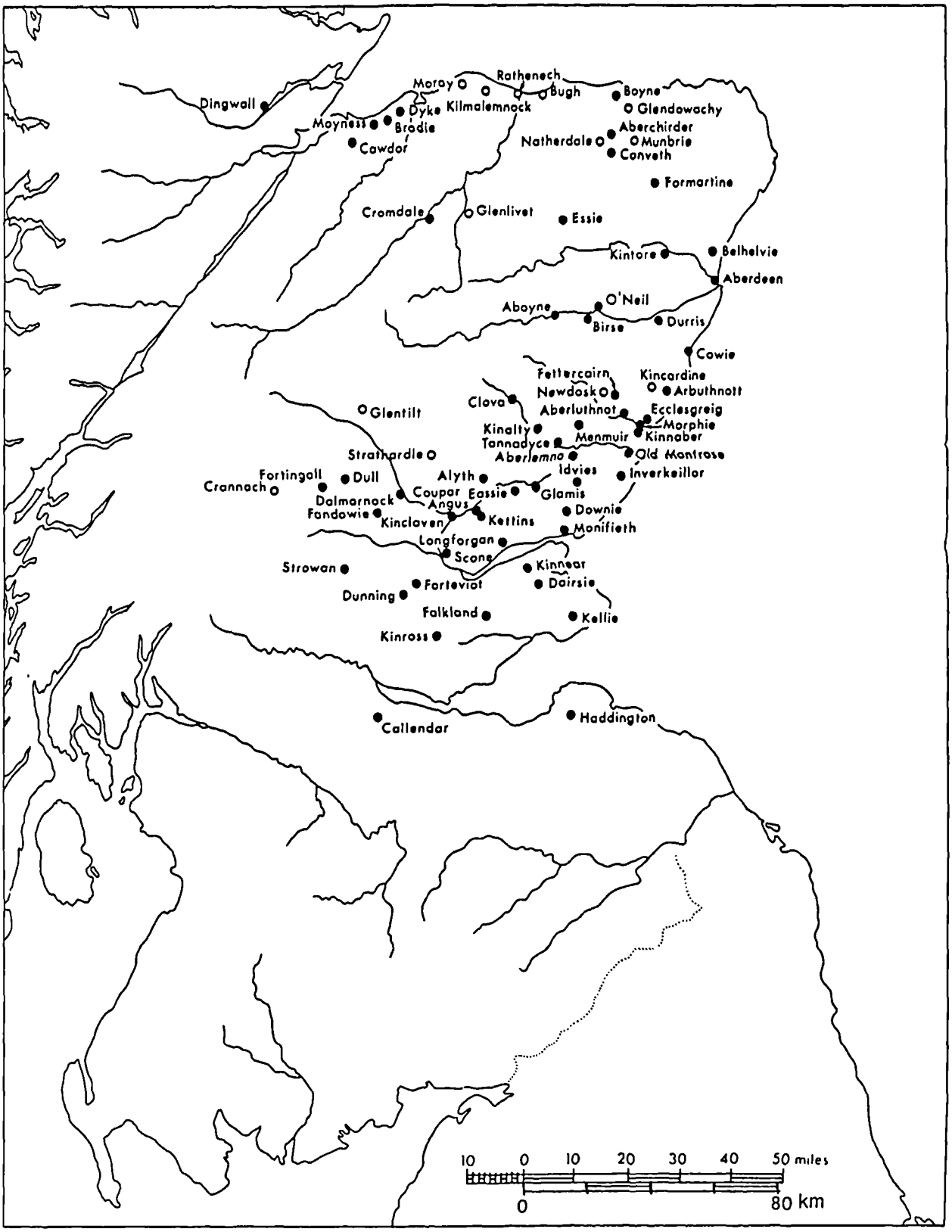
The non-residential infrastructure of the thanage included, of course, fields and corrals, fences and walls, orchards and woods, but of their precise form we can say little. The most important and probably the least understood non-residential component of the thanage was the meeting place, the place where court could be held, and where the local lord may have been inaugurated. The meeting place seems to have been marked by a small mound and also seems to have been preferentially located near areas of ancient ritual activity, places where prehistoric

monuments tend to cluster. This hints at a pre-Christian religious aspect of the meeting place, the nature of which is obscure.

The origins of the thanage are likewise obscure, but on the face of it the model thanage seems to be provisioned with all the necessary attributes of a tribe, or an Irish túath. We will consider this and other matters arising in the final section.


4.1
STRATHEARN
P-Celtic Place-Names & Thanages
• pett-names
■ other P-Celtic names
pre-feudal thanages
Land over 183m (600 ft)
KM 5 0 5 10
GRAMPIANS
River Tay
STRATHMORE
SIDLAW HILLS
River Almond
Loch Earn
River Earn
TROSSACHS
STRATHALLAN
OCHILL HILLS
MENTEITH
Loch Leven
STP

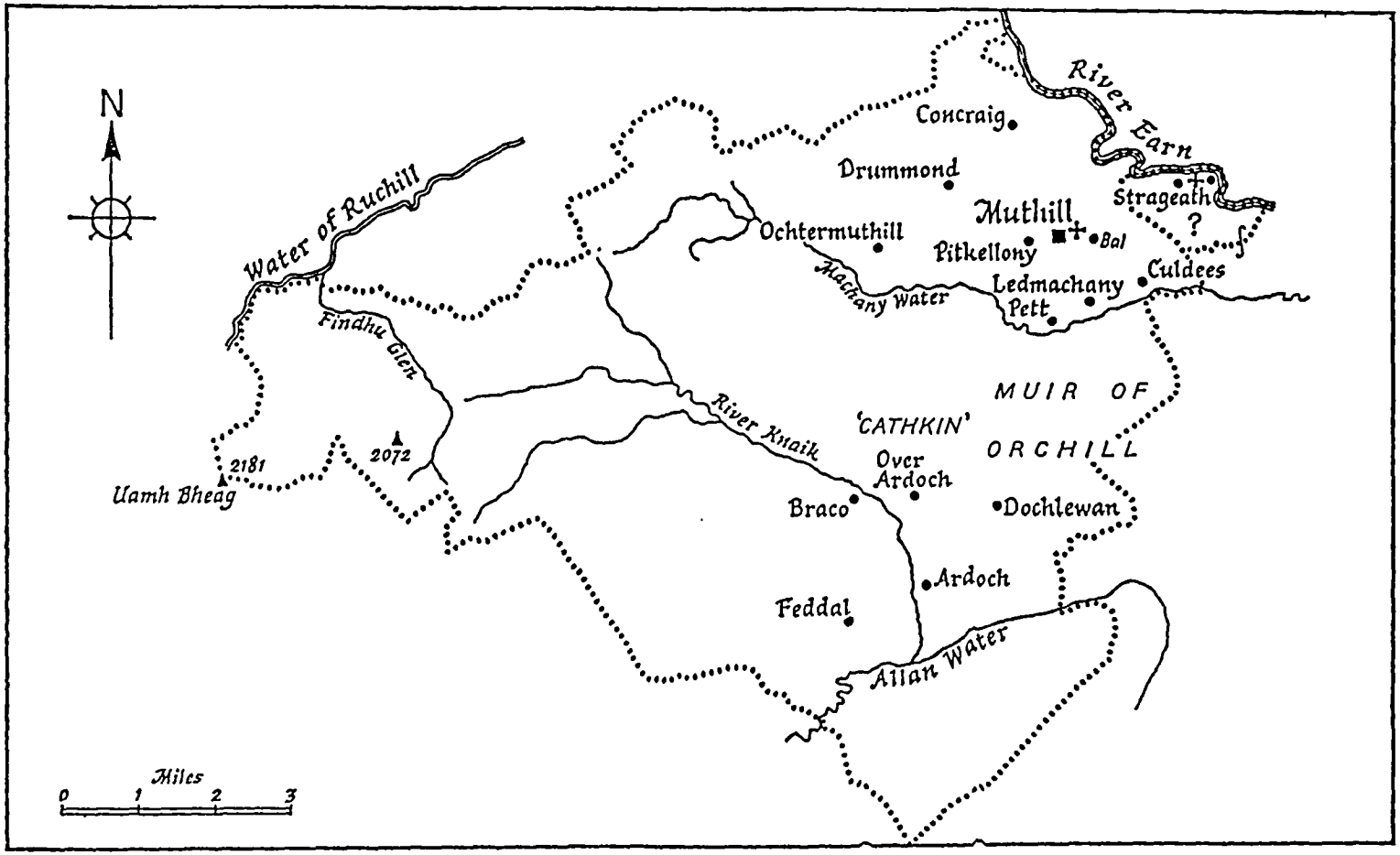

4.2
STRATHEARN
CHURCHES & EARLY PICTISH MONUMENTS
Church Sites
Cathedral
Symbol Stone Class I
ECMS Class II
ECMS Class III
Fragment: either Class II or III
Land over 183m (600 ft)
Long Cist Cemetery
KM 5 0 5 10
GRAMPIANS
TROSSACHS
STRATHALLAN
OCHILL HILLS
STRATHMORE
SIDLAW HILLS
MENTEITH
Dunkeld
River Tay
River Almond
Methven
Scone
Inchaffray
Loch Earn
River Earn
Strowan
Muthill
Forteviot
'eccles'
Abernethy
Dunning
'eccles'
Dunblane
Loch Leven
St.Serf's
STD



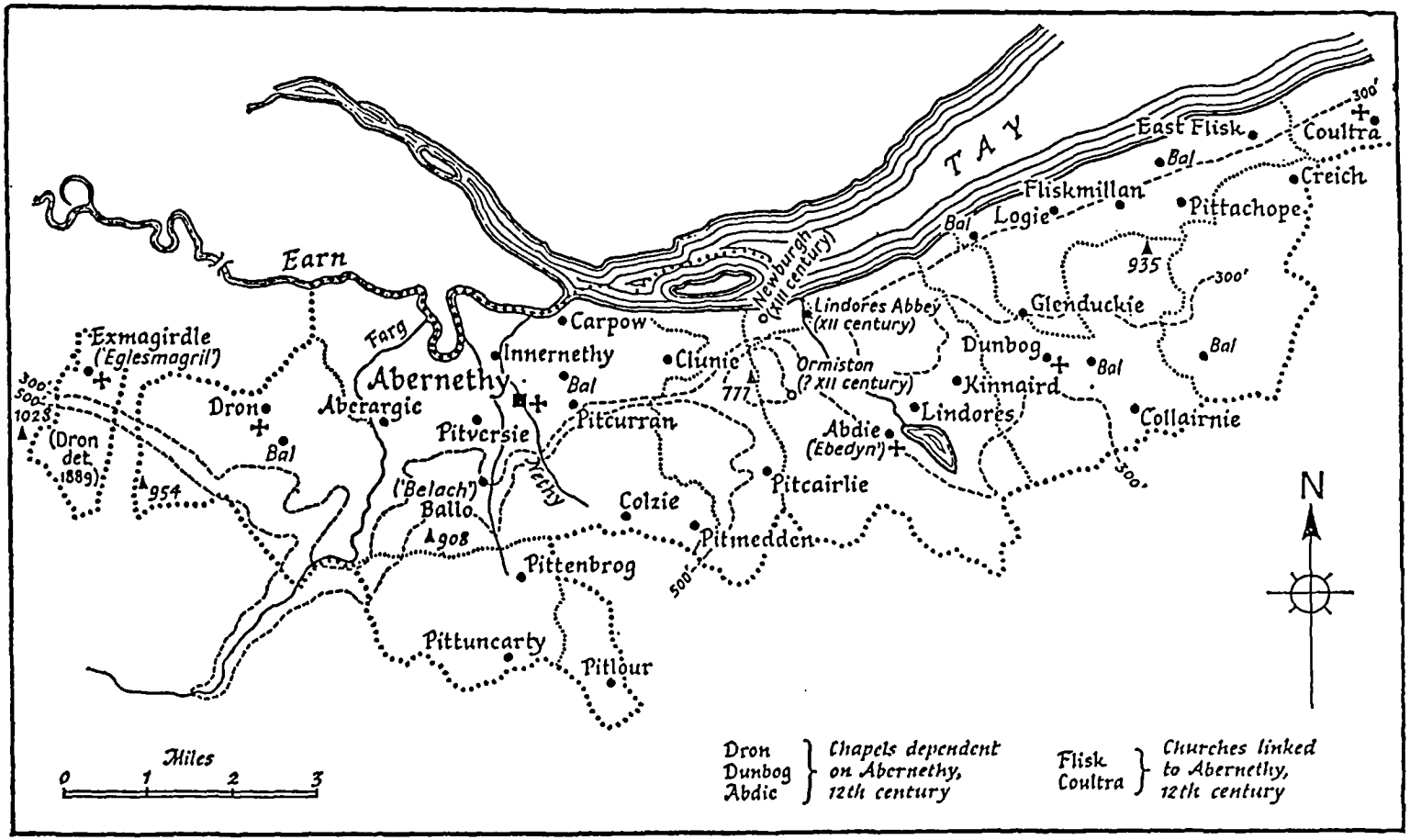
● Thanages

○ Thanages whose location is doubtful

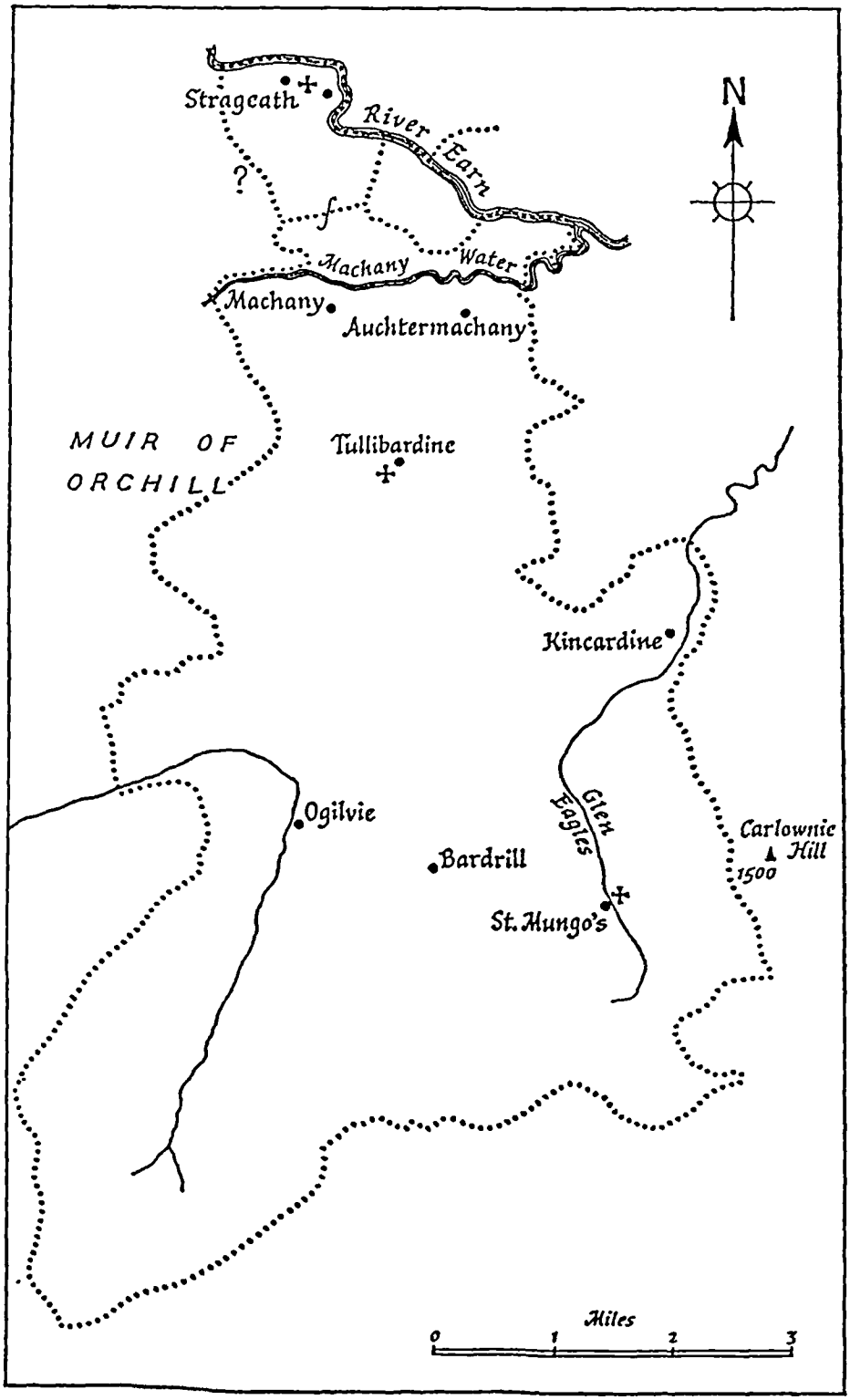
4.3 Distribution of Thanages (after Muir 1975).



44 'Cather mothel' Cf. Lindores Chartulary, nos. 24, 25, 28. For Cathkin or Cotkin cf. ibid, 245 (after Barrow 1973).



4.5 Conjectural 'shire' of Abernethy: suggested reconstruction. Names from various sources, but cf. esp. *Arbroath Liber*, i, no. 35 and *Lindores Chartulary, passim.* (After Barrow 1973).



4.6 'Catherlaucnach.' Cf. *Inchaffray Liber*, p. xxix; Watson, *CPNS*, 223. (after Barrow 1973).

SECTION V:

Conclusion and Appendices

Chapter 15

Conclusions and Perspectives

In this final chapter I will review some of the problems raised by this study, make some specific recommendations for future work and discuss some of the historical implications of the findings of this research. However, before discussing these topics, it seems appropriate to begin this conclusion with a reconsideration of the approach and its implications for other studies in historical archaeology.

One of the implicit goals of this study was to establish a new approach or problematic for Pictish studies, by which I mean a new way of framing issues and formulating questions. Whether I have succeeded is not for me to judge, but it seems worthwhile at this point to make some of these implicit intentions explicit. Most of the general intentions behind these research proposals are not new, except in Pictish studies. Although these comments are concerned in the first instance with early medieval Scotland, they do address problems which are widespread in medieval studies.

My first axiom is that, as far as possible, the study of documents and artefacts should be well integrated, with neither source of knowledge being treated as superior a priori. This has been said before, and not just by me (Driscoll 1987a, Leone 1977), but it bears repeating. Expertise in all facets of scholarship is not required to conduct this integration. For instance, although I have no formal training in history or linguistics, Barrow's work on place-names and pre-feudal shires has given me access to these difficult areas of scholarship. Barrow is cautious about projecting these indicators of pre-

feudal social institutions back into the Pictish period and is reticent about the internal social workings of these institutions. This is fair enough from a purely historical perspective; however, the introduction of archaeological information, full of uncertainties though it is, changes this. The integration of the two bodies of scholarship allows us to speak with more confidence about the Pictish origins of these institutions. Just as important, the archaeological perspective allows us to go further and examine the internal workings of these institutions. The real measure of a successful blend of history and archaeology should be that it opens up new ways of proceeding. The contribution of archaeology certainly does that; more on this later.

The reference to Barrow in this context is not gratuitous, for his work reminds us of the appropriate scope of research within this new paradigm. It is local, it is landscape oriented, and it eschews site specific enquiry except as a means towards understanding the workings of the social system as a whole. This is not to deny that there are still pressing questions to be asked of almost every imaginable type of early medieval site, but those questions must include a search for interrelationships between sites. Again, this is not a new suggestion, but it has yet to be implemented in an early medieval context. Nor will it be easy to do: the attempt to provide a regional context for Danebury via aerial photography (Palmer 1984), illustrates the difficulty. The study of the Hampshire Iron Age landscape is superficial by comparison with the examination of the hillfort itself. Ultimately, the discrepancy between the effort spent on the fort and on its surroundings, reveals the 'regional

perspective' of the Danebury project to be little more than lipservice. A similar criticism might be levelled at the use of aerial photographic evidence in this thesis, but I would not suggest that this is a substitute for more intensive investigations. I would suggest, rather, that it provides the necessary background for future research. More of this later, as well.

The importance of landscape orientations is often taken for granted. Here I have tried to construct a case for the centrality of agricultural production in shaping the society and economy of the early middle ages. This is a departure from the conventional perspective, which adopts the point of view of the historically documented aristocracy. It allows us to question the prominence given to the conventional historical forces, those which are concerned primarily with the interests of the elite. But we cannot as yet question the conventional perspective in a very sophisticated fashion; our poverty of knowledge here is indicated by our inability to distinguish the agrarian regimes of northeast Scotland from those of western Scotland, Ireland, Wales or much of England. One of our explicit goals then is to expand the ranks of 'historical actors' in order to permit us to write more representative, more socially legitimate, history.

A related economic concern should be an examination of the ways in which specific goods and artefacts were used to establish and maintain social relations. In theory this plays upon one of the strengths of archaeological research, which is its wealth of detailed information about artefacts, their manufacture and distribution. The problem remains to bring this strength to bear on the issue of understanding how specific items of material

culture acquire and transmit meaning, and how in turn this reveals the processes of social reproduction. Barrett (n.d.) provides some useful suggestions about how to proceed in a prehistoric context. While he does not discuss the potential contribution of texts, it is clear that this perspective is eminently applicable to historical archaeology. With or without texts the ultimate challenge is to infer meaning from the context of an object; context here has two meanings - archaeological, in the sense of stratgraphic location, and social, in the sense of of a setting or environment. The latter is a construction based upon the evidence of the former. Texts can obviously help us to appreciate the aspects of social context, which can not be recovered from the archaeological evidence alone. While this holds no specific promise for Pictish studies, its relevance to other medieval studies is self-evident.

The contrast between this archaeological approach and the text dominated histories should be likewise obvious. For our period, we will always be restricted by the texts to the analysis of elite behaviour. Archaeology can play an important role in fighting this intellectual closure and holds the promise of eventually being able to write a social history of early medieval Scotland.

Problems and Solutions

Having extolled the virtues of a landscape orientation, it remains to qualify what is meant here by landscape research and the implications of this study for its execution in eastern Scotland. Clearly if we are interested in discovering

interrelationships between sites, we need fine-grained, localized studies on the scale of parish surveys. In this respect studies, such as Shepherd's (1983), which attempt to identify settlement patterns from a regional vantage point, are of limited use: they are too broad. Although his study draws together a considerable amount of information about Pictish settlement, it offers no way into that material, it lacks an interpretative key. Shepherd's survey is probably best seen as a backdrop to more detailed studies, and as a guide to available data and promising study areas. Cottam's and Small's survey (1974), which is on an even bigger scale suffers from the same problem magnified, but it also raises other problems. The most serious of these concerns the weight given to environmental conditions as determining factors in settlement location. This tends to minimize the role of human action and social forces in the construction of the settlement system. In this sense it is an anti-humanist approach. Environmental factors need not be treated 'deterministically' to be historically significant, but in fairness this flaw is present to a greater or lesser extent in all geographic studies of early medieval settlement in Scotland, and is not just Cottam's and Small's failing.

Another aspect of landscape studies which we have touched upon in this study and which is arguably a major influence on early medieval settlement, relates to prehistoric land-use patterns. This topic clearly requires further studies and from several perspectives. The most prominent aspect of this topic is the continued veneration of areas of prehistoric ritual activity. I have suggested that this is a common phenomenon in Strathearn and cited the case of the Christian burials in the North Mains

henge to argue that the prehistoric monuments were active in shaping early medieval behaviour. The ideological significance of the reuse of prehistoric monuments in early historic Scotland requires an investigation of its own. A second, less clearly articulated, influence on early medieval settlement patterns is the prehistoric settlement patterns. There is a physical geographic aspect to this, in so far as attractive settlement sites, in terms of soils, drainage, precipitation and so on, are likely to have remained attractive and to have been reoccupied, even if there was no direct continuity. However, anthropogenic factors shaping the environment should probably be considered as equal, if not more important than, natural ones. It does seem likely that sites like Newmill are not unique and that Iron Age occupation preceded many Pictish settlements. It would be surprising were it otherwise.

The case for continuity of settlement location has to be placed in the context of both positive and negative anthropogenic impacts on the environment. On the debit side is soil degradation, which can be caused by certain farming practices and seems to have been responsible for some discontinuity in settlement location in prehistoric times. On the credit side is enhanced fertility brought about by constructive farming practices like manuring, field enclosure and forest clearance. Additionally, unless we imagine static populations, processes of expansion and contraction must be examined in any long term history of land use. Obviously there are several different lines of investigation here, but they all are connected by a single theme, which is that chronologically broad studies are needed if we are ever to capture the dynamic aspects of ancient land-use.

It should not need saying that an integral element of any landscape oriented study must be palaeobotanical studies. There are two lines of investigation to be followed here. One is that pioneered by Martin Jones and exemplified in the Danebury report (1984), which was conducted to answer archaeological questions, not purely environmental ones. This is an important point, since it is the relationships between producers and consumers that are of interest and not the palaeobotany itself. The other track is the well established field of environmental reconstruction from pollen analysis. Here the concern must be with dating the samples adequately; archaeologists, it would seem, desire finer chronological precision than do botanists.

So far we have talked about general recommendations for future research, but there are a number of issues concerning specific components of the landscape that need to be considered. Although the parish is arguably the most appropriate unit for an intensive, localized study of early medieval settlement systems, many of the lacunae in our knowledge encompass broad classes of monuments and in some cases our ignorance embraces whole ecological zones. The conventional division between highland or upland zones and lowland zone is still useful for distinguishing specific problems, even if its utility in historical analysis is limited. The upland areas of central Scotland (Stirlingshire, Dunbartonshire, and Perthshire) are probably the least well known of any upland region in Scotland. This simply reflects the lack of archaeological fieldwork conducted here. Major surveys are lacking and the coverage of excavation is uneven. In many cases the well known hillforts are set within areas where there are conspicuous pre-Improvement settlement and cultivation remains. A

high priority should be given to the study of these remains, not only for their intrinsic interest, but to try and resolve specific questions concerning the relationship between upland and lowland areas. Although we can point to various upland resources - querns, iron ore, grazing lands, and so on - we are in no position to do more than speculate on how they were exploited or to estimate their economic importance. This is not so much a case of filling gaps in knowledge, but of nearly complete ignorance about the form and density of settlement, of the closeness of relationships with lowland communities and even of potential vulnerability of these archaeological resources to afforestation and other development. One of the Ochil forts has been destroyed by forestry in recent years and Clatchard Craig has been quarried away, but it is impossible to estimate on the basis of our present knowledge how much else may have been lost.

We may identify problems in the study of lowland settlement with more precision; some of these were made quite clear during the course of this thesis. Undoubtedly, the weakest links in the arguments presented in the preceding chapters concerned the interpretation of cropmark sites. It is commonplace to hear that a certain degree of uncertainty underlies every cropmark identification, and this is particularly true with settlement and agricultural remains. These inherent difficulties are exacerbated in our area by the uneven investigation of certain types of sites. Principal among these must be the 'enclosures' which come in so many different forms that it is impossible to generalize across the whole category. The twin goals of future research on this topic must be to confirm or modify interpretive schemes like that presented in Chapter 10; and to establish much firmer

chronological controls. These goals can probably not be achieved through ad hoc rescue excavations, but require a systematic campaign of research. This thesis and that of Lesley Macinnes provide the basis for mounting such a campaign in eastern Scotland, since they contain comprehensive surveys of the aerial evidence. Such a campaign might be conducted in two phases, the first consisting of a series of small scale trial excavations which should include representatives of the major different site types. The second phase would then be a selective campaign of more extensive excavations conducted at key sites, places which are morphologically typical of a large number of sites and which are tolerably well preserved. Such a campaign would require a long term commitment to solving this set of problems.

Other rather better understood types of sites could benefit from equally well conceived research programmes more precisely targeted. Among sites relating to the agrarian economy, these include souterrains, which still lack a firm chronology, and the several varieties of cultivation remains, about which we know next to nothing. These problems could conceivably benefit from modest scale excavations. A much larger scale is called for at other sites, however, if we are to acquire the sort of data which will enable us to reconstruct social contexts from archaeological evidence. The two classes of sites which require large scale examination are church sites and early historic fortifications.

Having excluded churches from most of this thesis, it would be presumptuous now to identify specific research aims. Suffice it to say that almost every aspect of early Scottish church archaeology requires extensive investigation. We are in a better position to assess the next stage in the investigation of early

historic fortifications in Scotland. Alcock's series of trial investigations at historic sites can be regarded as the first phase of a two stage process. These excavations have allowed us to identify these elite sites and have shown the range of activities which occurred there. The next phase is to explore the nature of that activity in greater detail. The research programme followed by Alcock did not allow him to examine the patterning of occupation within the sites. So although the surface remains are indicative of considerable architectural complexity, we have only the vaguest indication of the different uses to which various areas were put; and we do not yet know anything approaching a complete building sequence at any of these sites. Ironically the best architectural history comes from that early historic site with the worst excavation record in Scotland: Dunadd.

Although not in Pictland, it is still instructive to consider the evidence from Dunadd. There is no need to repeat the details of the royal associations with the site or describe the artefactual evidence discovered there: for an introduction to that see Nieke and Duncan (1987). The excavation history at Dunadd stretches back to the beginning of this century (Christison 1905, Craw 1930), but it is the evidence from the as yet unpublished excavations by Alan Lane which are of interest here. Lane, in a lecture to the Society of Antiquaries of Scotland (October 1986), suggested a building sequence comprising at least four phases (see also Lane 1980, 1981). The earliest structure was a dun occupying the summit of the hill. This was augmented with an enclosure which was annexed to the dun, but the whole structure was still more or less confined to the summit. He suggests that this was then provided with the massive walled

'bailey', which was itself altered on at least one occasion. A point to be taken here is that this long-term development is a good index of the continuity of the site as a political and social centre.

Dunadd also provides suggestive hints of the social differentiation of space within the site: residential areas and *industrial areas seem* to be identifiable, at least in general terms. Tentative though these patterns are they have important social implications. Over the past decade, ways of analysing the social significance of domestic and industrial space have become increasingly sophisticated (Glassie 1975, 1982, Hiller & Hanson 1984, Markus 1982), and the theoretical techniques developed by these scholars promise to reveal a great deal about the society that built and used the 'nuclear' forts. What such analysis requires is the data from the investigations of large areas. Even without excavations it is possible to hint at the social factors behind the multiple enclosures.

As we have said, in the theoretical schemes of the early Irish law tracts social rank was crudely reflected in the number of ramparts (Warner 1987), but the nuclear forts seem to embody subtler indications of social stratification. An area within the fort can be analysed in terms of the number of enclosing walls separating it from the entrance, in terms of its proximity to other areas, and in terms of the activities which took place there. The potential for social analysis of this complex use of space is limited only by our imagination and the available data. So, while it is attractive to assume that the innermost, summit enclosure at Dundurn was the lord's residence, we have no way of assessing the social implications of the several other enclosures

at the site. It may be that an archaeological excavation, which revealed the social implications of the architectural order of a site like Dundurn, would prove useful for interpreting the social meanings embodied in the ordering of the rest of the early historic landscape. This however is sometime away.

Historical Implications

Throughout this thesis I have stressed that it is concerned with the historical development of Strathearn. Even at this premature stage it is worth summarizing some of the direct contributions which it makes towards improving our understanding of that development. The local origins of the pre-feudal shire can be seen more clearly to have Pictish roots, although it is not yet clear how coherent our putative Pictish shires were. A coordinated effort to investigate the evidence of a well documented shire by both archaeologists and historians would probably be fruitful in helping to identify origins. The archaeological identification of a social institution like a shire presents a real challenge, but if attention is focused on agricultural evidence and evidence for the local circulation of high quality crafts goods such as might be produced under the lord's patronage, it is possible.

The identification of origins is of little value if it is divorced from attempts to understand the social processes involved in the development of the thanage; these focus on the subordination of kinship to clientage, or family to fealty. There can be little doubt that as the political arena in which the lords of Strathearn found themselves evolved from Fortriu, to

southern Pictland, to Scotland important social changes occurred. Elsewhere, I have described the construction of administrative networks with increasing disregard for kinship relations as characteristic of the development of states (1987b). In that paper I sought to link that social development with the Pictish symbol stones; here I have drawn attention to the shire and its attendant features. I believe the two phenomena to be related, but can only support the suggestion with the observation that both features developed in east central Scotland at roughly the same time and both would fit nicely with certain ideas about the origin of the thanage. These ideas emerged from this work, but are somewhat hypothetical and should probably be regarded as a 'working model', subject to revision and refinement. We can start from the supposition that the thanage represents the vestiges of an archaic tribal entity comparable to the Irish túath and that, like the Irish tribes, these Pictish tribes competed among one another for overlordship. By the time the historical curtain opens on Pictland, Strathearn is the polity of Fortriu, which we may suppose was made up of numerous tribes, a few of which were sufficiently strong to contest the kingship. Political entities the size of Fortriu are probably at the upper size limit of what may be ruled by political networks based exclusively on kinship; any bigger, and new administrative techniques are required. By the time the kings of Fortriu begin participating in the overkingship of Southern Pictland, they seem to have developed some of the administrative rudiments of statehood. We have mentioned the evidence for this - the existence of royal officials and the close interrelationship between the ecclesiastical officials and royalty - at various points in this thesis. One strength of this

scenario is that the origins of the administrative structure of thanages need not be seen as a 'primitive' model of Mediterranean state bureaucracy. Rather, there is every indication that it was modelled on the relations of clientship which were in turn the outgrowth of kin dominated political structures.

I began this thesis by suggesting that archaeology had a role to play in examining the origins of the Scottish medieval state. In the course of this thesis I hope I have shown that archaeologists are in a position to participate actively in these debates which are so fundamental to Scottish History. I have endeavoured to show how archaeologists can engage in discussions of issues like the formation of the Scottish identity, not from the perspective of historians like Edward Cowan (1984), but through an examination of the construction and maintenance of the social forms which developed into the medieval state.

Appendix I

Portfolio of AP Sites Plotted at 1:10000

The sites transcribed onto these maps include all of the settlement evidence in the aerial photographic collection of the NMR up to the summer of 1984, the last year for which photographs are available. A considerable number of prehistoric ritual monuments are also recorded. The only major types of monuments not included here are Roman military sites. The cropmark features have been transcribed onto A4 photostats of OS 1:10000 coverage supplied courtesy of Tayside Regional Council.

The portfolio is organized by OS map sheet. Each site has been given a number which is unique to each sheet and that number is used to identify the site on the lists compiled for each sheet.

NN 72 SE

1. Cultybaggan	770205
2. Dalginross	774210
3. Drummondernoch	798210

NN 81 SE

1. Grannochan	858100
2. Westerton 1	872148
3. Westerton 2	875145
4. Aldonie	856136

NN 81 NE

1. Dornock Riverside	882188
2. Cuiltburn	892177
3. Dornock	882192

4. Dalpatrick Ford	889184
5. Dalpatrick Complex	889188
6. Dalpatrick	893189
7. Strageath Field System	895179
8. Strageath Cottage	888182
9. Dornock Rings	878189

NN 82 SW

1. Lochlane	835212
2. East Lochlane	840213
3. Carse of Lennoch	803225
4. Lennoch	805217

NN 82 SE

1. Oakbank	856223
2. Broich	867202
3. Pittentian	877205

NN 90 NW

1. Millhill	929097
2. Loaninghead	924098
3. Peterhead	924096
4. Drumford	916095

NN 91 SW

1. Castle Mains 1	948136
2. Castle Mains 2	943134

NN 91 SE

1. Cloan	960116
2. Thorn	961121
3. East Mill	960126
4. Kirklands of Damside	964147

NN 91 NW

1. Mains of Strageath	901183
2. Parkhead	900178
3. South Mains, Innerpeffray 1	907179
4. South Mains, Innerpeffray 2	903179
5. Kinkell Bridge	931164
6. Calfward	934156
7. Waulkmill 1	928158
8. Waulkmill 2	933163
9. North Mains, Strathallan	928162
10. Craigshot	919172
11. Craigmill Cottage	919174
12. Whitehill	917164

NN 91 NE

1. Belhie 1 & 2	977164 & 979165
2. South Strathy	988172
3. Middle Strathy (Broadslap)	993158
4. Mailingknowe	994152
5. Haugh of Aberuthven 1	987171
6. Haugh of Aberuthven 2	984169
7. Gascon Hall	987173
8. Hilton of Gask	989178 & 991176

NN 92 SE

1. Williamston	973224

NO Ø1 SW

1. Duncrub	ØØ9147
2. Millhaugh	Ø11142
3. Dunknock, Dunning	Ø23143
4. Findony	Ø19140
5. Wester Keltie	ØØ7140

NO Ø1 NW

1. Mains of Duncrub	ØØ4155
2. Masterfield	Ø10171
3. Leadketty	Ø13153
4. Leadketty Ritual Complex	Ø21159
5. Inverdunning House	Ø25160
6. Baldinnes	Ø22166
7. Drum of Garvock	Ø36163
8. Bogtonlea	Ø44160
9. Muirhead	Ø41151
10. Upper Cairnie 1 & 2	Ø37192
11. The Four Acre	Ø41191

NO Ø1 NW/NO Ø1 NE

1. Forteviot	Ø54174
2. Forteviot Ritual Complex	Ø53169
3. Forteviot Village	Ø49175
4. Green of Invermay/Gallows Knowe	Ø5Ø161

NO Ø1 NE

1. Forgandenny	Ø88186
2. Newton of Condie 1	Ø75184
3. Newton of Condie 2	Ø71183

NO Ø2 SW

1. Kinnon Park	Ø38248
2. Easter Cultmalundie	Ø41227
3. Wester Cultmalundie	Ø3Ø224

NO Ø2 SE

1. Powside	Ø52249
2. Middle Powside	Ø53248
3. Powbridge	Ø54245
4. Marlefield	Ø59245
5. Peel	Ø55235
6. Blackruthven Cottages	Ø62241
7. North Blackruthven	Ø68246
8. Southton of Blackruthven	Ø71238
9. Huntingtower 1	Ø81249
1Ø. Huntingtower Quarry	Ø79246
11. Tibbermore	Ø74226

NO Ø2 SE/NO Ø2 NE

1. Huntingtower Ritual Complex	Ø8Ø251

NO Ø2 NE

1. Newton	Ø88252
2. Bertha Park	Ø84264

3. Tulloch	Ø93252
4. Bertha	Ø98270
5. Loanleven	Ø58253
6. Pitcairngreen	Ø68269
7. Luncarty 1	Ø97291
8. Broxy Kennels	Ø91278
9. Gold Castle	Ø97289
10. Cairnton	Ø70275
11. Moneydie	Ø75297
12. Coldrochie	Ø78292

NO Ø3 SE

1. Luncarty 2	Ø983Ø3
2. Kinvaid	Ø693Ø1

NO 11 NW

1. Dunbarney	113187
2. Ballendrick	119177
3. Moncreiffe House	131194

NO 11 NE

1. Newbigging	151159
2. Baiglie	157159
3. Netherton	163162
4. Aberargie 1 & 2	168158
5. Carey	170166
6. Balgonie	193175
7. Ferryfield of Carpow	197181

NO 12 SW

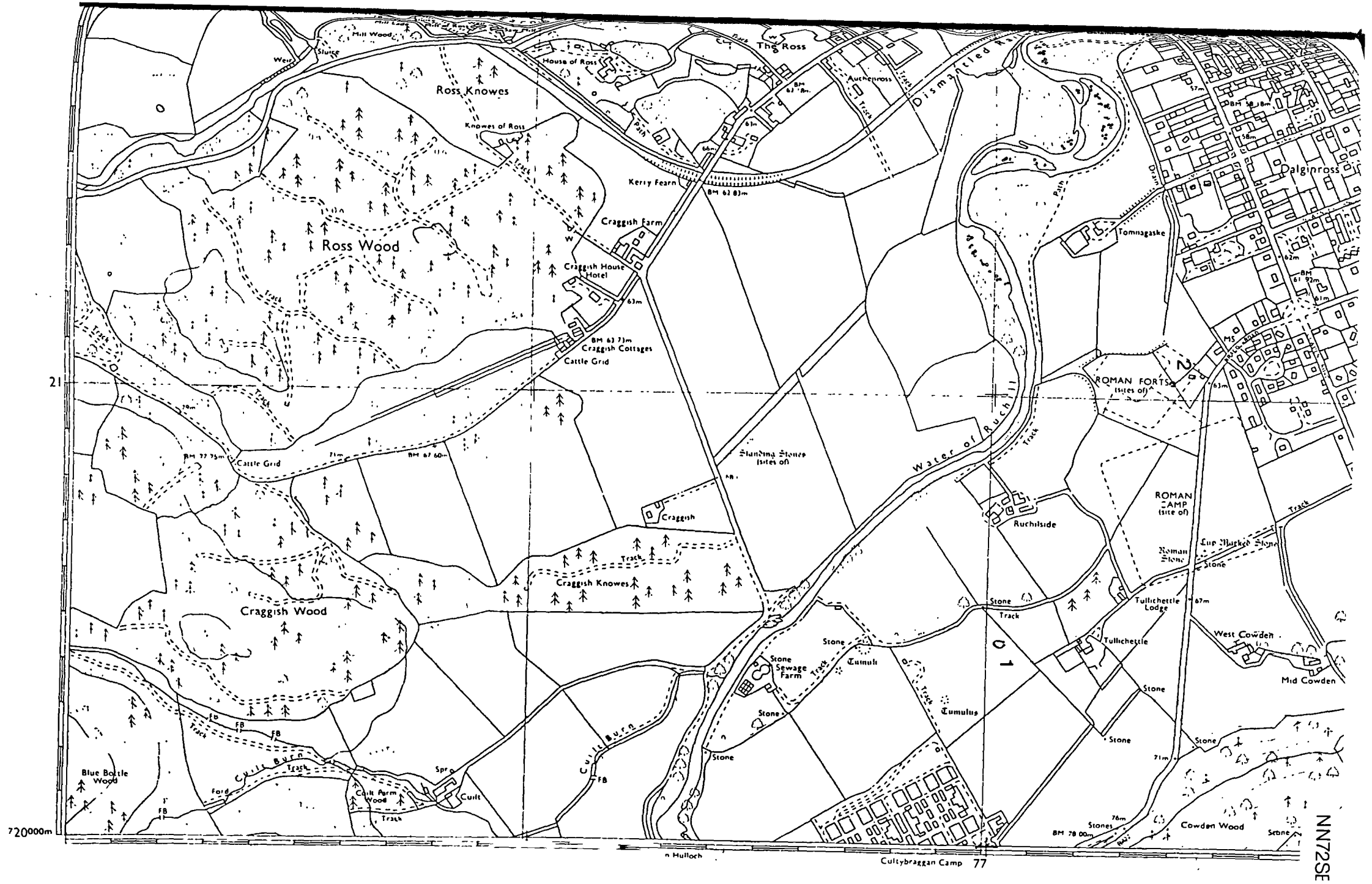
1. Hilton House	115201

NO 12 NW

1. Grassy Walls 1	104277
2. Grassy Walls 2	107280
3. Blairhall	116281

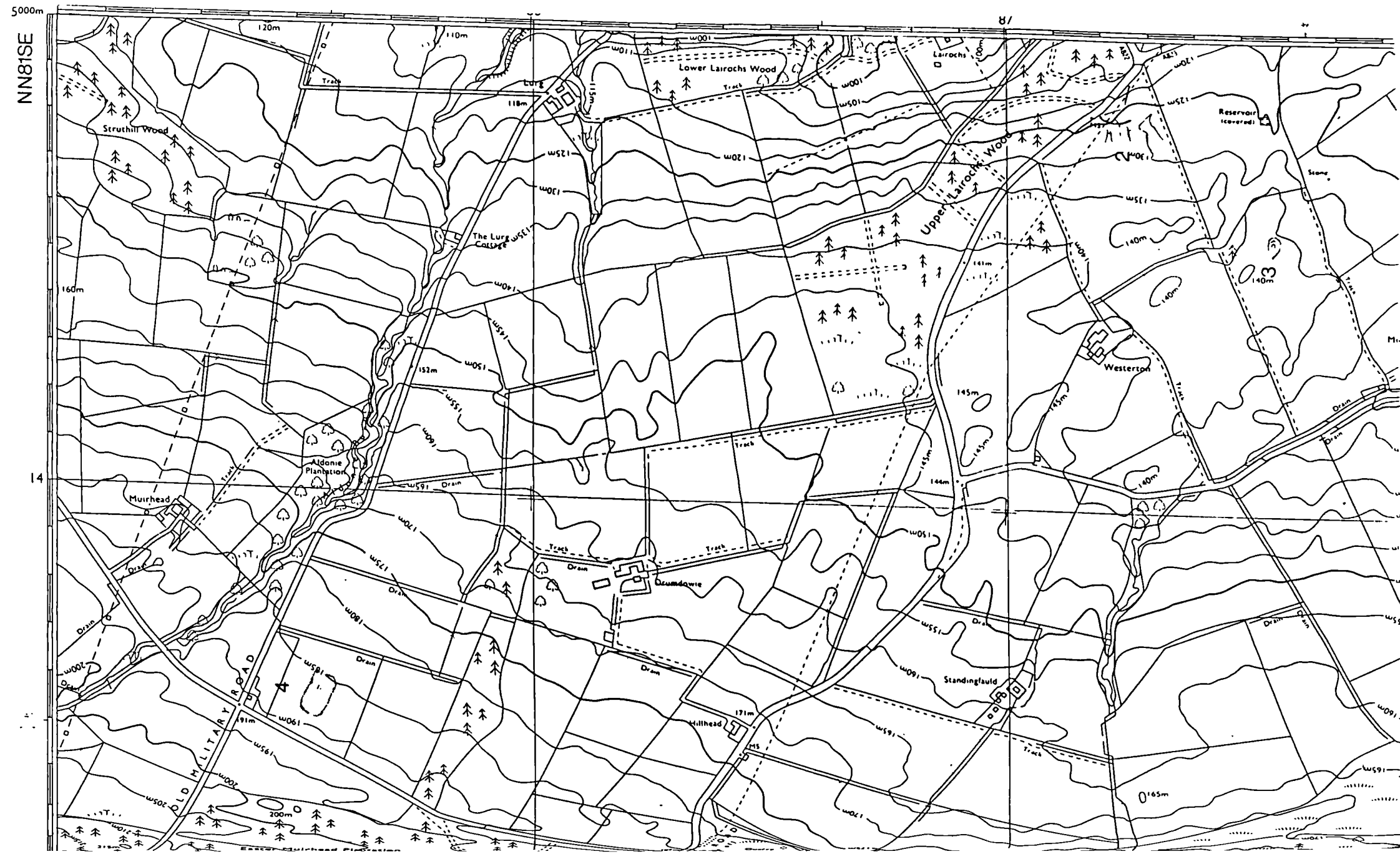
NO 21 NW

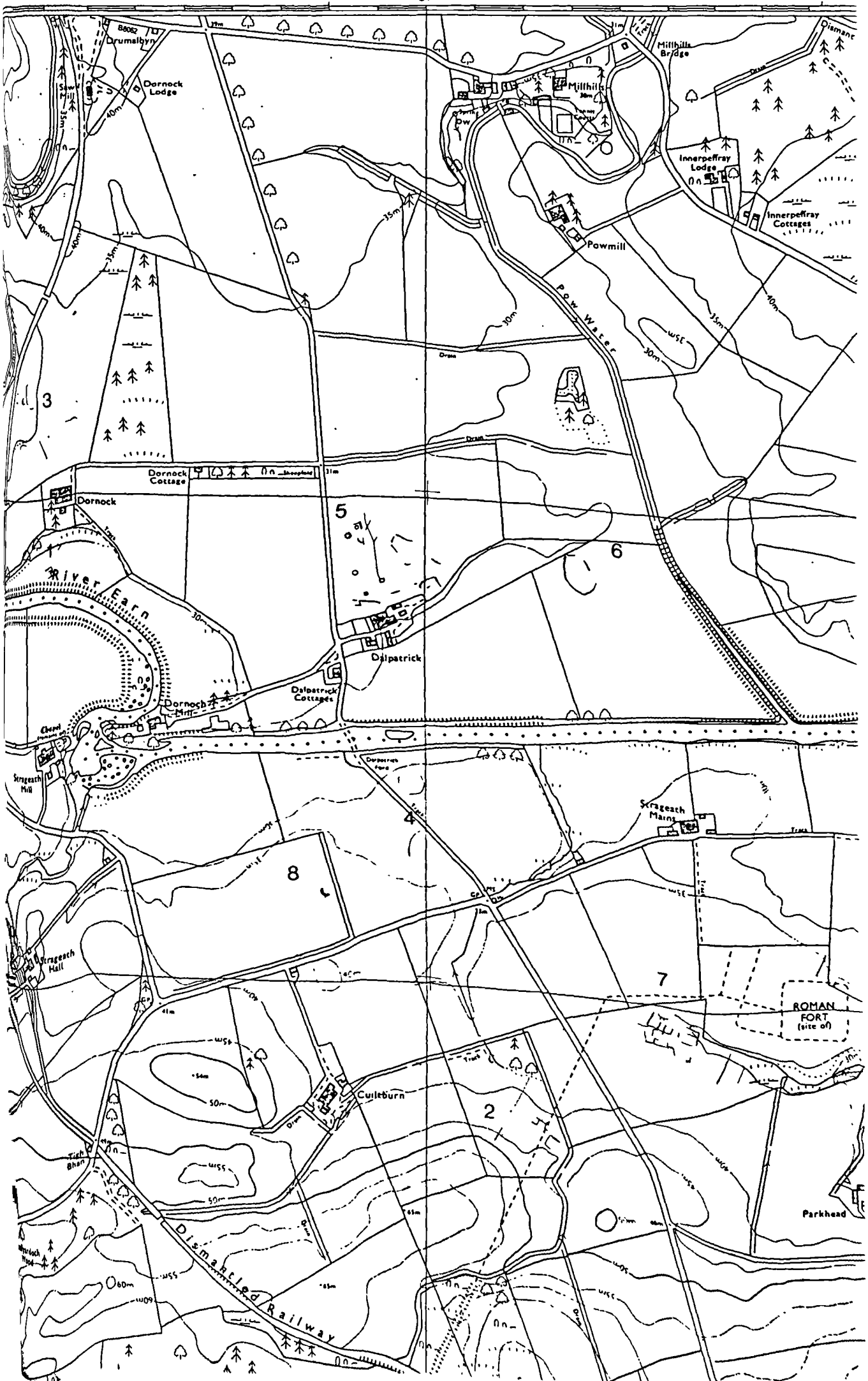
1. Carpow/Gilles Burn	209180
2. Easter Clunie	218178
3. Clunie Field	219179
4. Mugdrum 1	216181
5. Mugdrum 2	222182

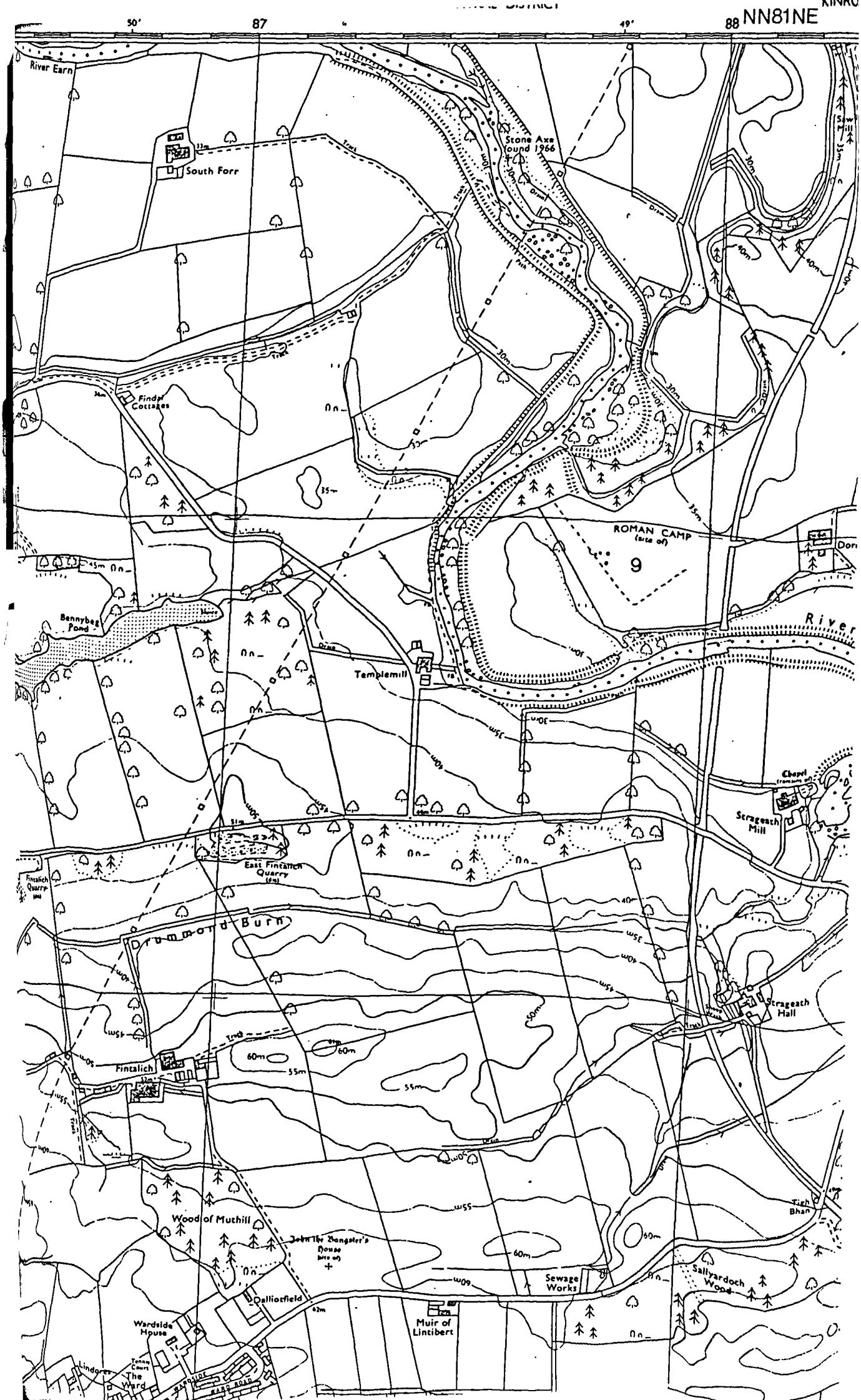

Ross Knowes
Ross Wood
Craggish Wood
Craggish Knowes
Craggish Farm
Craggish House Hotel
Craggish Cottages
Cattle Grid
Kerry Fearn
House of Ross
The Ross
Auchenross
Dismantled Rly
Dalginross
Tomnagaske
ROMAN FORTS (sites of)
ROMAN CAMP (site of)
Standing Stones (sites of)
Water of Ruchill
Ruchilside
Tullichettle
Tullichettle Lodge
West Cowden
Mid Cowden
Cowden Wood
Stone Sewage Farm
Tumuli
Cuilt Burn
Cuilt Farm Wood
Blue Bottle Wood
Cultybraggan Camp 77
720000m
NN72SE

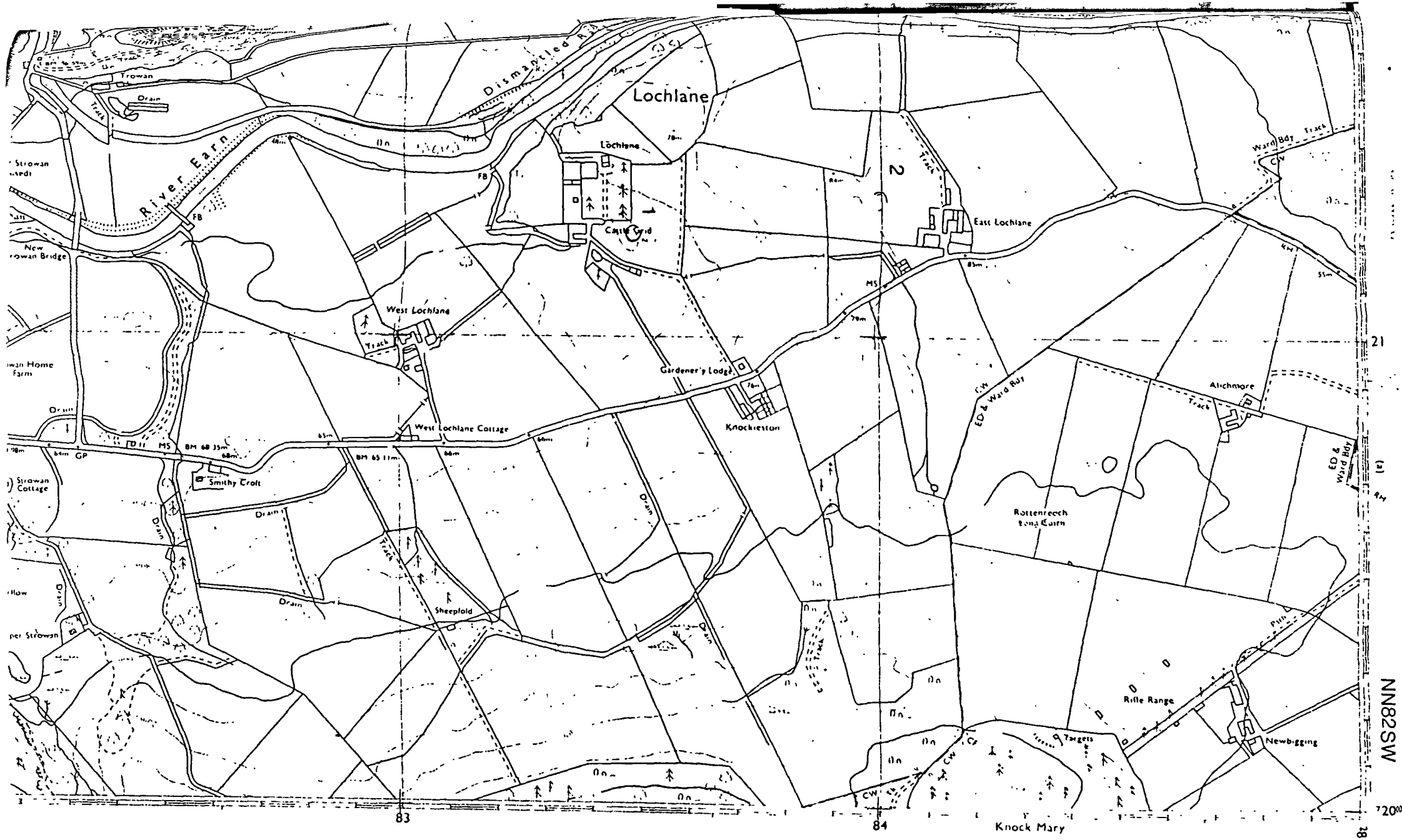

Muir of Orchil
Drum Coille Lodge
Drum Coille
Redford
Shielhill
Berrydyke
Orchil Den
Orchil House
Boat House
Tank
Dochlewan
Rhynd Burn
Orchil Burn
Broomhill
Gravel Pit
Millhill
Upper Rhynd
Track
Ford
1
86
50'
NN81SE

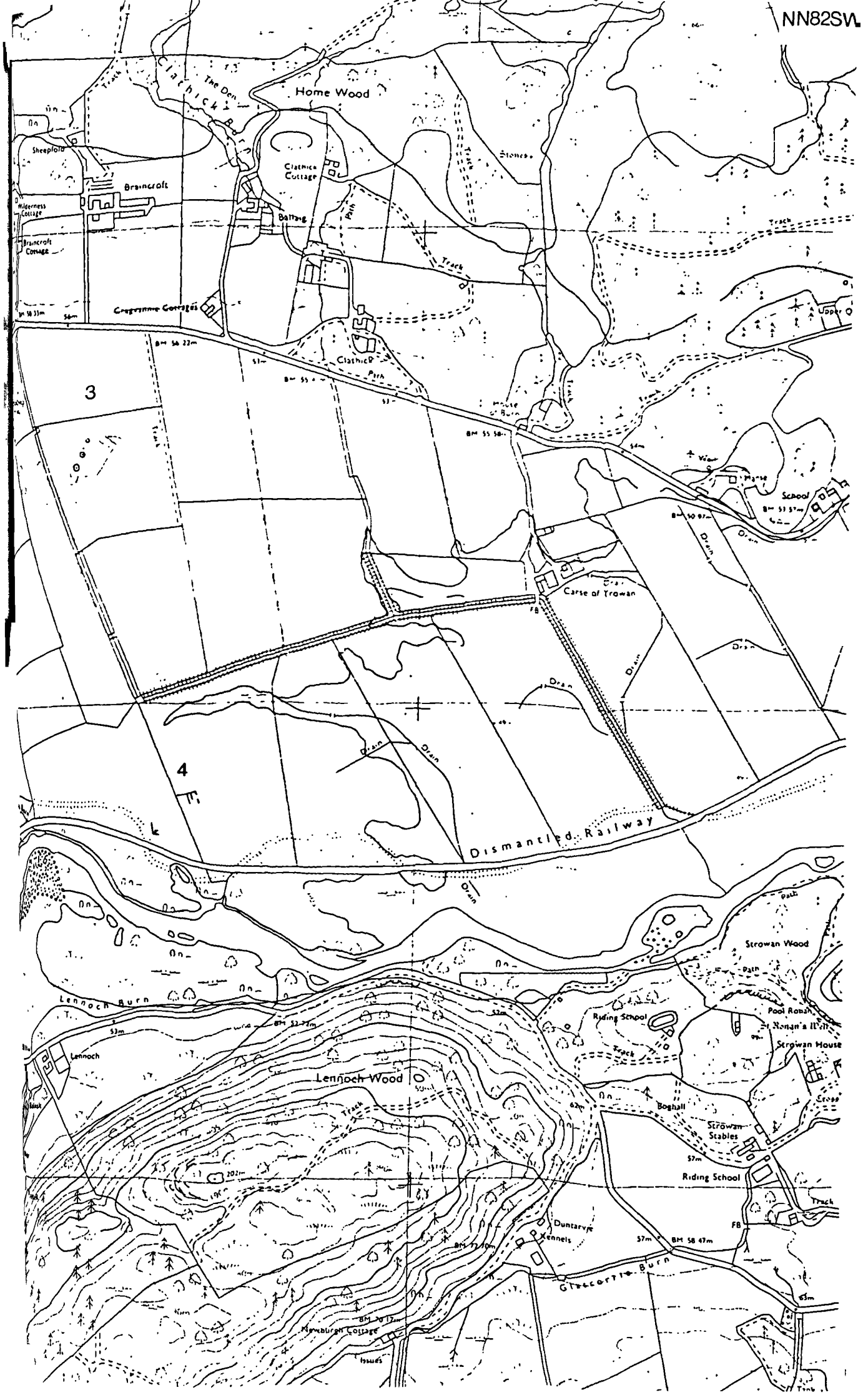

Muir of Orchil
Drum Coillie Lodge
Drum Coillie
Redford
Shielhill
Berrydyke
Orchil Den
Dochlewan
Rhynd Burn
Upper Rhynd
Orchil
86
NN81SE

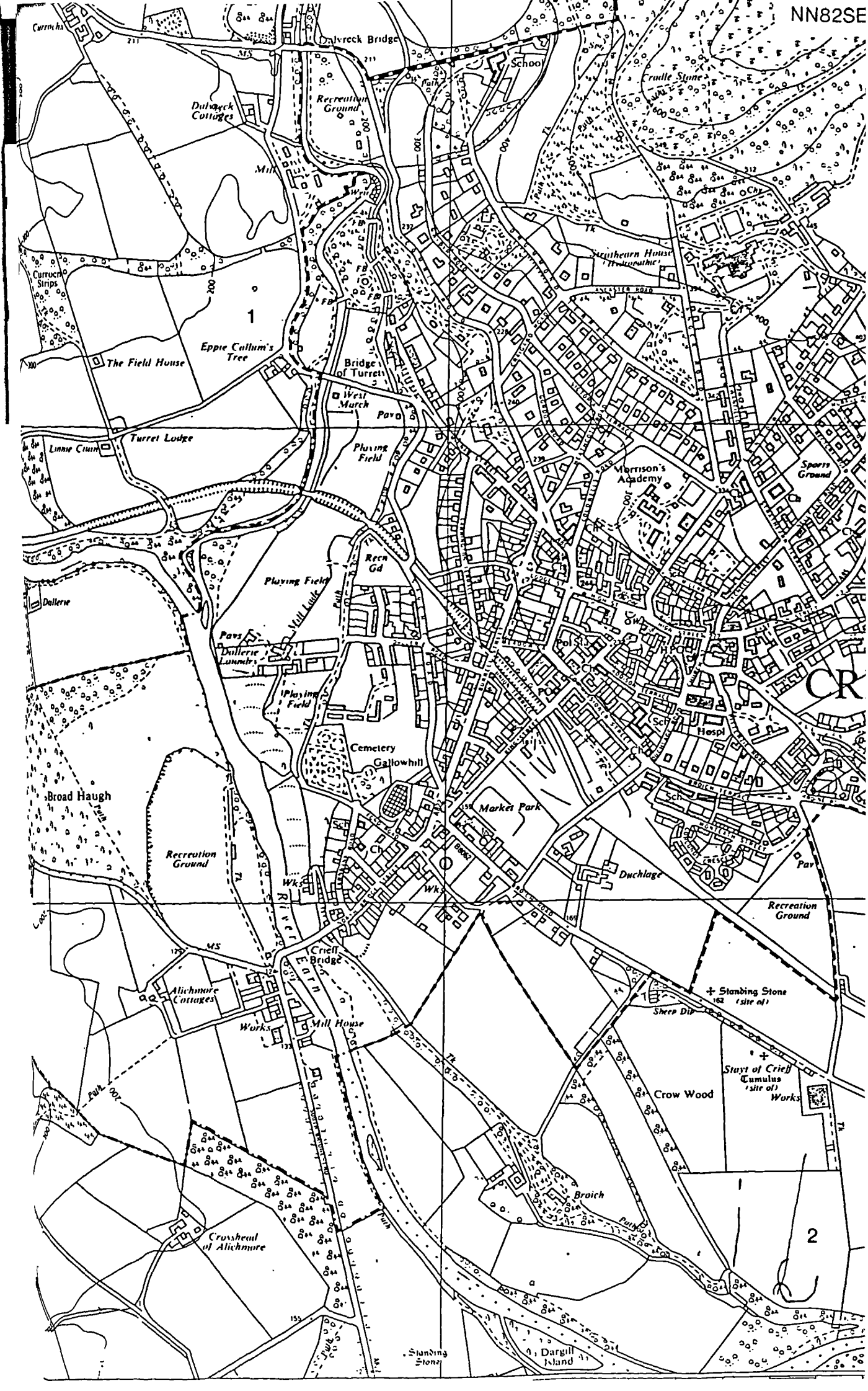

NN81SE
5000m
14
Struthill Wood
Lower Lairochs Wood
Upper Lairochs Wood
Lairochs
Reservoir (covered)
Stone
The Lurg
Cottage
Lurg
Track
Drain
Aldonie Plantation
Muirhead
Drumdawie
Westerton
Standingfauld
Hillhead
OLD MILITARY ROAD
Forest
120m
110m
118m
160m
152m
140m
145m
144m
141m
171m
191m
200m
165m
W100
W110
W120
W130
W140
W150
W160
W170
W180
W190
W200
W210
W220
W230
W240
W250
W260
W270
W280
W290
W300
W310
W320
W330
W340
W350
W360
W010
W020
W030
W040
W050
W060
W070
W080
W090

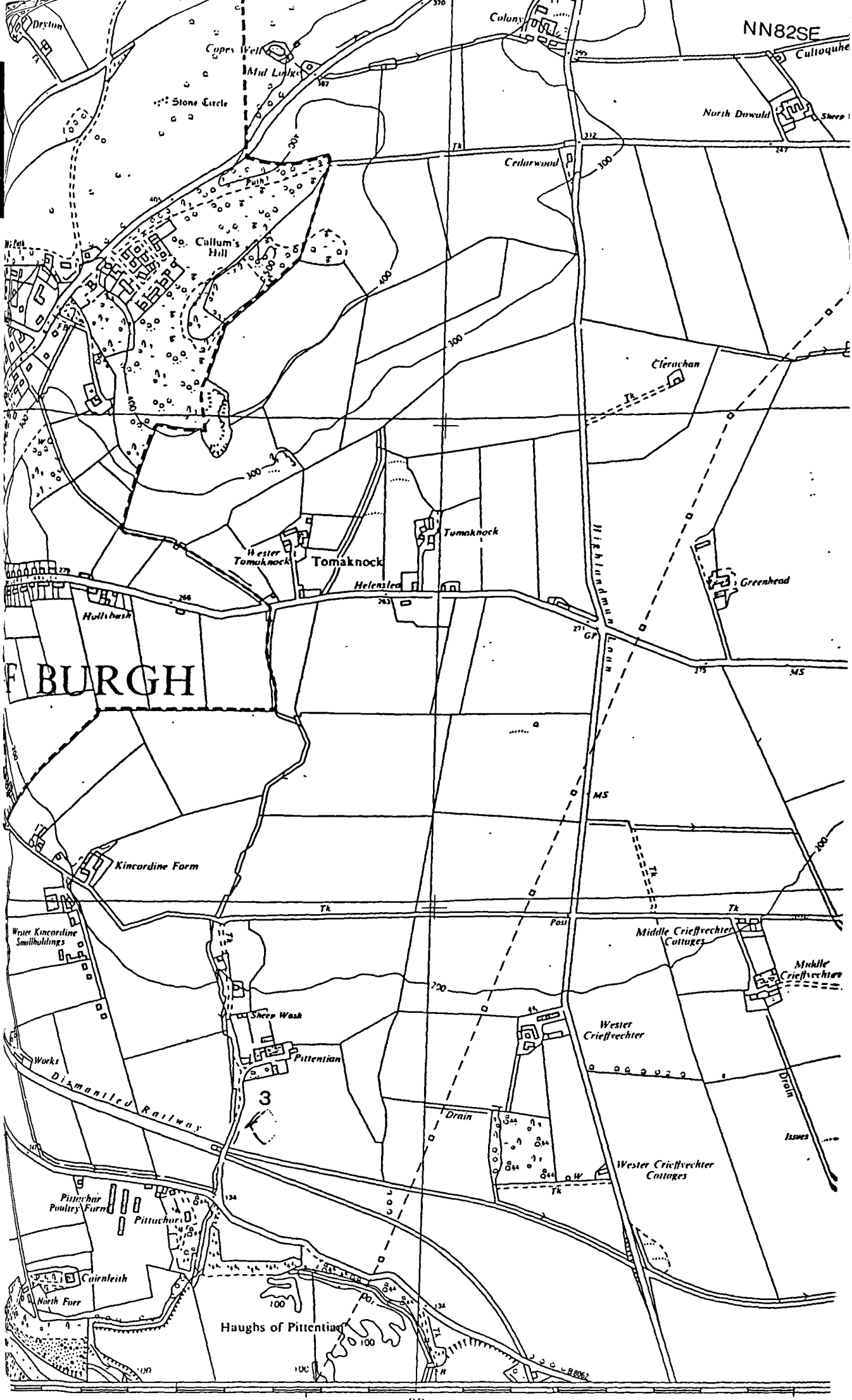

Drumalbyn
Dornock Lodge
Millhills
Millhills Bridge
Innerpeffray Lodge
Innerpeffray Cottages
Powmill
Pow Water
Dornock Cottage
Dornock
River Earn
Dalpatrick
Dalpatrick Cottages
Dornoch Mill
Stragreath Mill
Stragreath Mains
Stragreath Hall
ROMAN FORT (site of)
Cuilleburn
Dismantled Railway
Parkhead
3
5
6
4
8
7
2


NN81NE
50'
87
49'
88
River Earn
South Forr
Stone Axe found 1966
Findo Cottages
ROMAN CAMP (area of)
9
Bennybeg Pond
Templemill
River
Chapel (remains of)
Strageath Mill
East Fintalich Quarry (disused)
Fintalich Quarry (disused)
Drumond Burn
Strageath Hall
Fintalich
60m
55m
Wood of Muthill
John the Bangster's House (site of)
Dalliosfield
Sewage Works
Tigh Bhan
Sallyardoch Wood
Wardside House
Muir of Lintibert
Lindores
Tennis Court
The Ward
BANKSIDE
MAIN ROAD

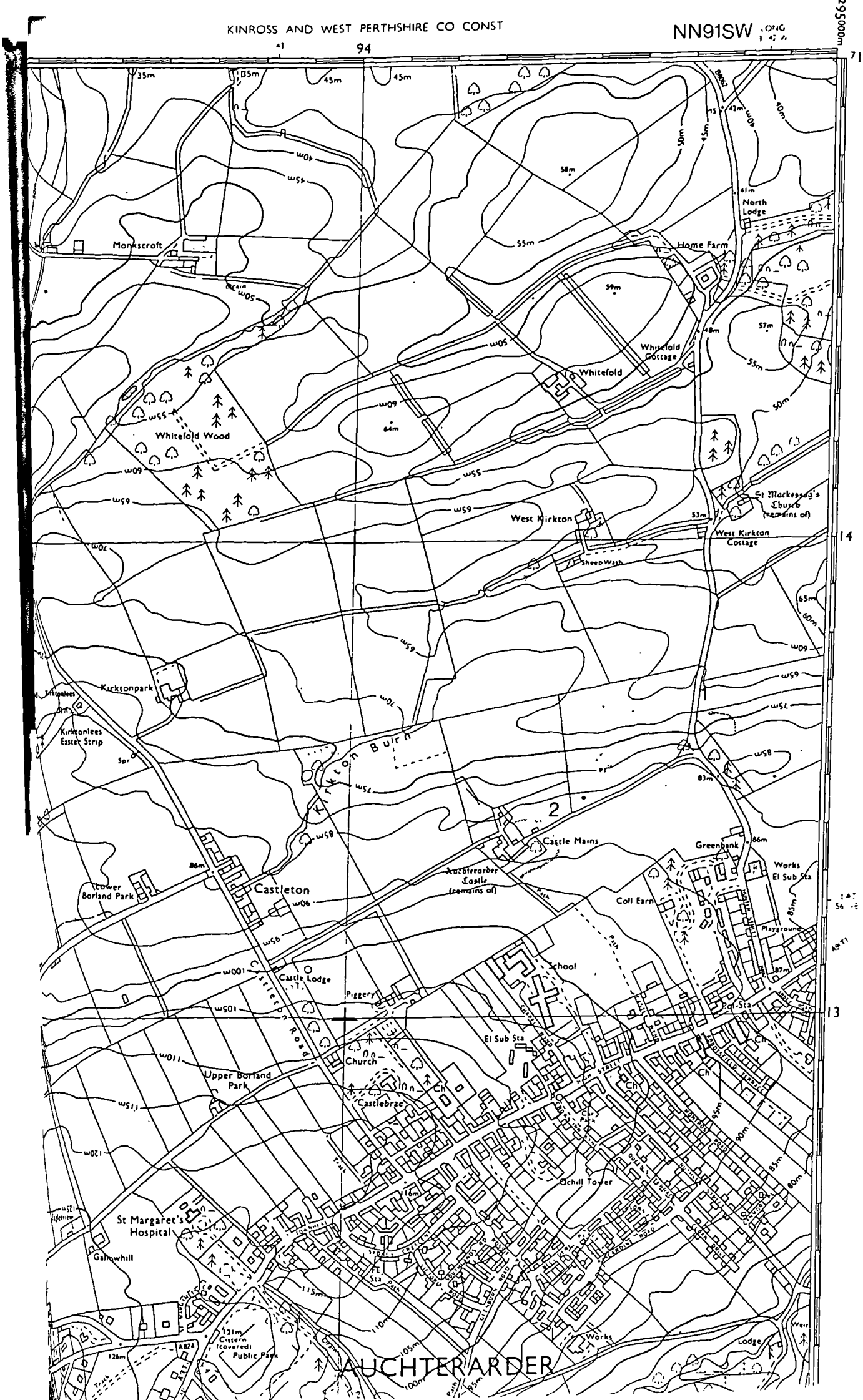

Lochlane
Dismantled R
River Earn
Trowan
Drain
Track
Lochlane
Cattle Grid
East Lochlane
Ward Bdy
West Lochlane
Gardener's Lodge
Knockreston
West Lochlane Cottage
Smithy Croft
Sheeploid
Rottenreech
Long Cairn
Alichmore
Rifle Range
Targets
Newbigging
Knock Mary
Strowan Cottage
New Trowan Bridge
Strowan Home Farm
83
84
85
21
NN82SW

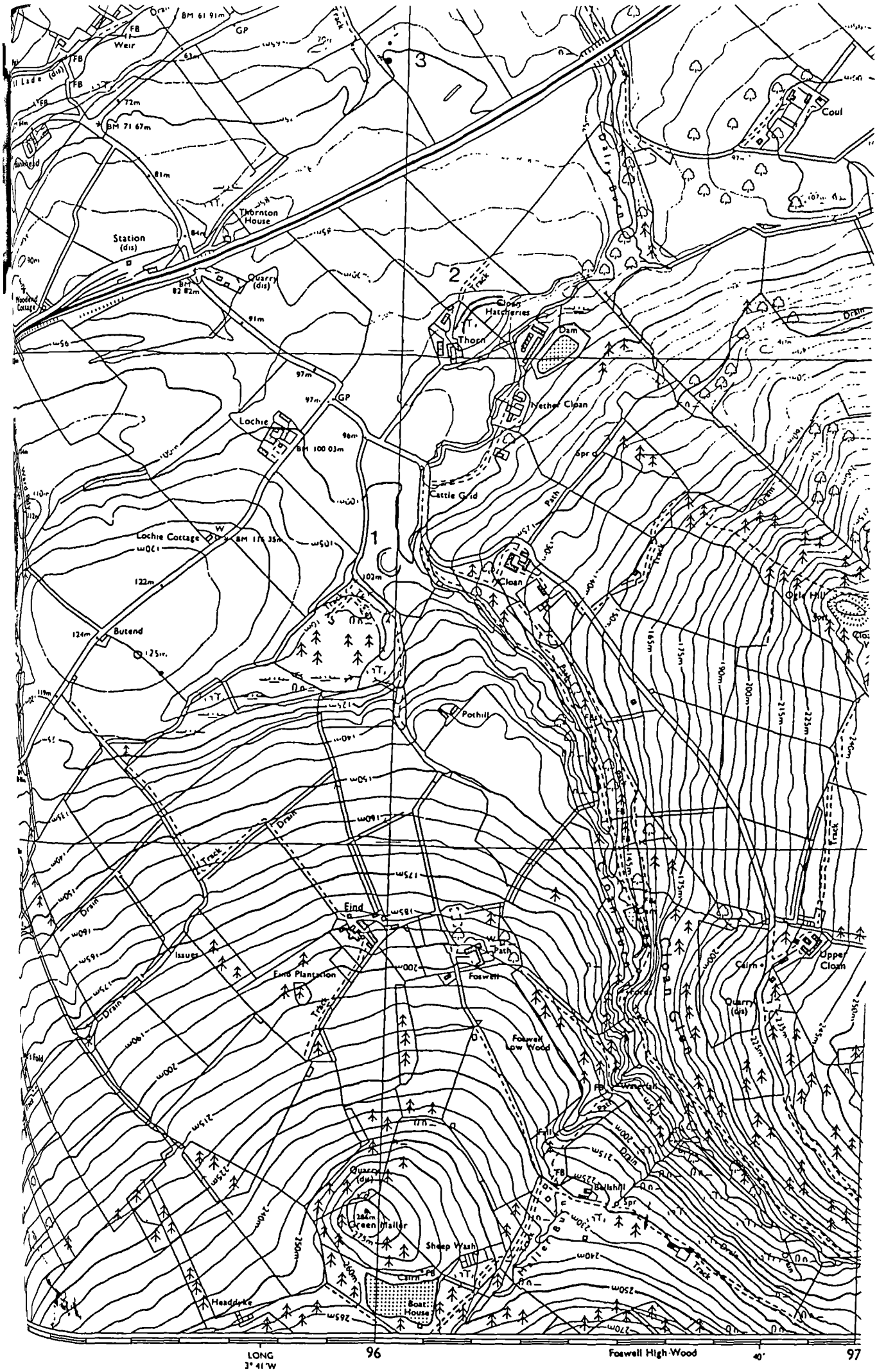

Home Wood
Clathick Burn
The Dell
Sheepfold
Braincroft
Clathick Cottage
Wilderness Cottage
Braincroft Cottage
Batting
Track
Path
Stones
Cregginmore Cottages
Clathick Path
Upper
3
Mast
School
Drain
Carse of Trowan
4
Dismantled Railway
Strowan Wood
Path
Lennoch Burn
Riding School
Pool Ronan
St Ronan's Well
Strowan House
Lennoch
Lennoch Wood
Boghall
Strowan Stables
Riding School
Track
Duntarvie Kennels
FB
Glaccarrie Burn
Newburgh Cottage
Issues


NN82SE
Currochs
Dalvreck Bridge
School
Cruille Stone
Dalvreck Cottages
Recreation Ground
Mill
Currochd Strips
Strutheurn House
1
Eppie Cullum's Tree
The Field House
Bridge of Turret
West March
Turret Lodge
Linnie Cluim
Playing Field
Morrison's Academy
Sports Ground
Rect Gd
Playing Field
Dallerie
Mill Lade
Path
Pavs
Dallerie Laundry
Playing Field
Cemetery
Gallowhill
Hospl
Broad Haugh
Market Park
Recreation Ground
Wks
River Earn
Duchlage
Recreation Ground
Criell Bridge
Standing Stone
(site of)
Sheep Dip
Alichmore Cottages
Works
Mill House
Stuyt of Criell
Cumulus
(site of)
Crow Wood
Works
Broich
Crosshead of Alichmore
2
Standing Stone
Dargill Island

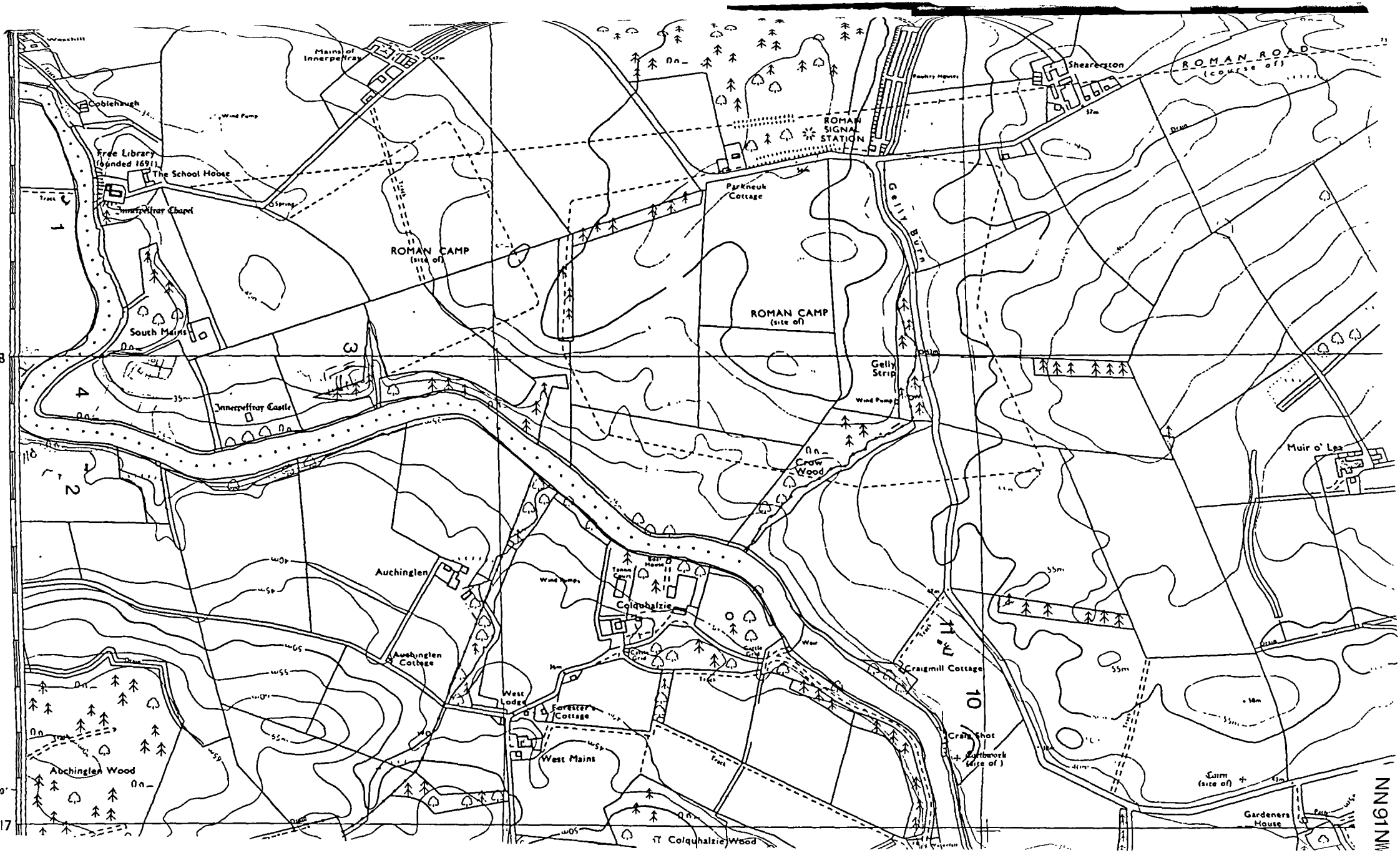

NN82SE
Dryton
Copes Well
Mid Lodge
Stone Circle
Colony
Culloquhe
North Dowald
Cedarwood
Cullum's Hill
Clerachan
Tomaknock
Wester Tomaknock
Tomaknock
Helensleo
Greenhead
Highland Mun
Hollybush
F BURGH
Kincardine Farm
Wester Kincardine Smallholdings
Sheep Wash
Pittentian
Works
Dismantled Railway
Middle Crieffvechter Cottages
Wester Crieffvechter
Drain
Wester Crieffvechter Cottages
Issues
Pittachar Poultry Farm
Pittachar
Cairnleith
North Forr
Haughs of Pittentian
3

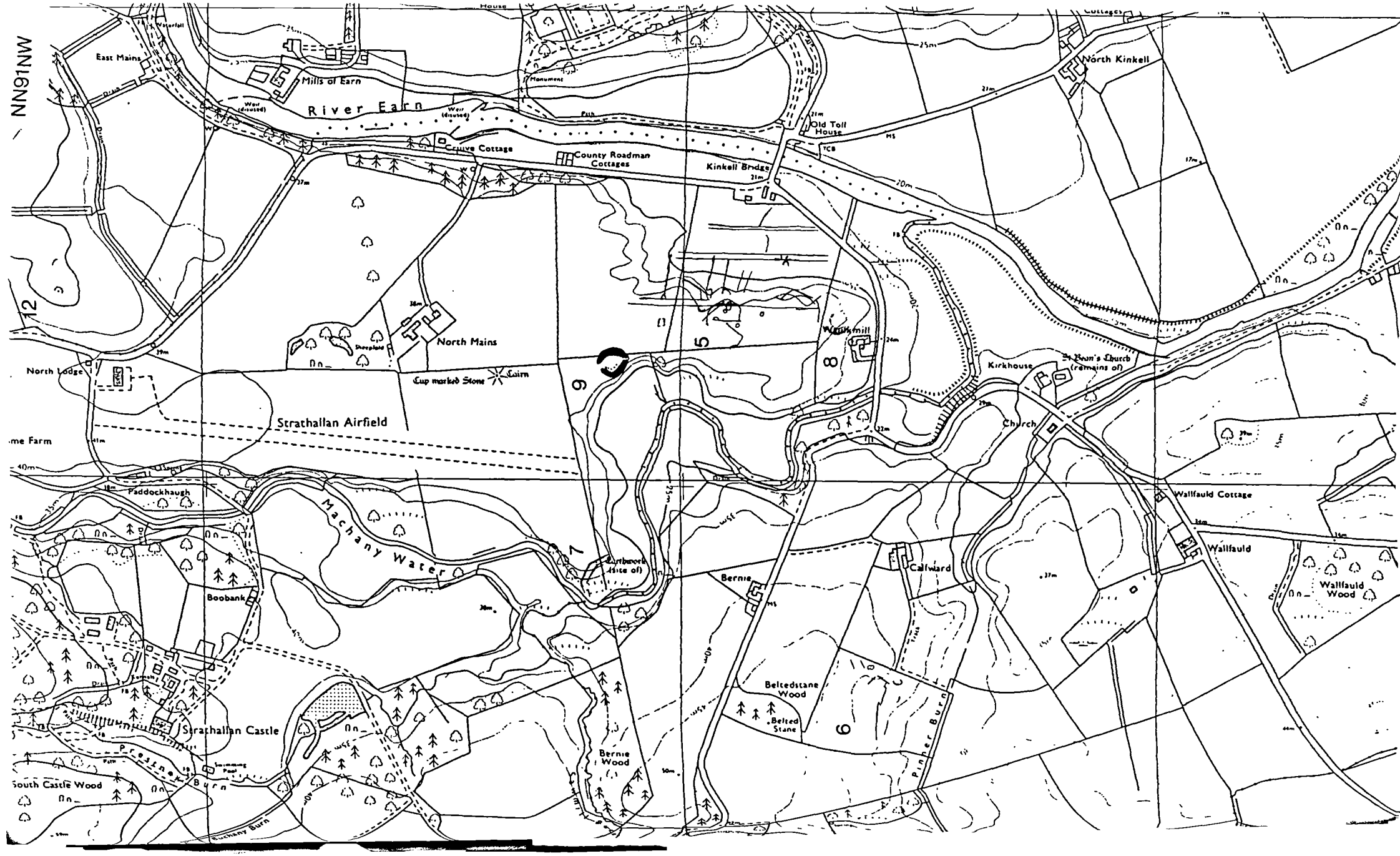

NN90NW
NN90NW
Camp Wood
Drumlochy
Loaninghead
Symbol Stone
Millhill
Millton of Duchally
Tennis Court
Duchally
Black Plantation
Standing Stone
Peterhead Plantation
Peterhead
Orumfad
Drain
Bog Wood
Muiralehouse
Gleneagles Castle
(remains of)
Lochside
Lochside Wood
Weir
Track
Path
Water
The Kinnaker
Barrate Cottage
Burial Ground
St Ninian's Chapel
(restored)
Old School House
West Mains Cottage
West Mains
East Mains Farm
Gleneagles House
Issues
Drumlochy Water
Orumfad Water
Webster Burn
Easterman Burn
A811
B8081
Sort
Track
Ford
FB
Weir
BM 133·04m MS
BM 138·92m
BM 139·42m
BM 42·14m
BM 180·22m
BM 89·04m
BM 153·44m
BM 169·03m
BM 140·31m
BM 135·06m
BM 131·58m
BM 133·64m
BM 128·38m
BM 130·30m
BM 167·54m

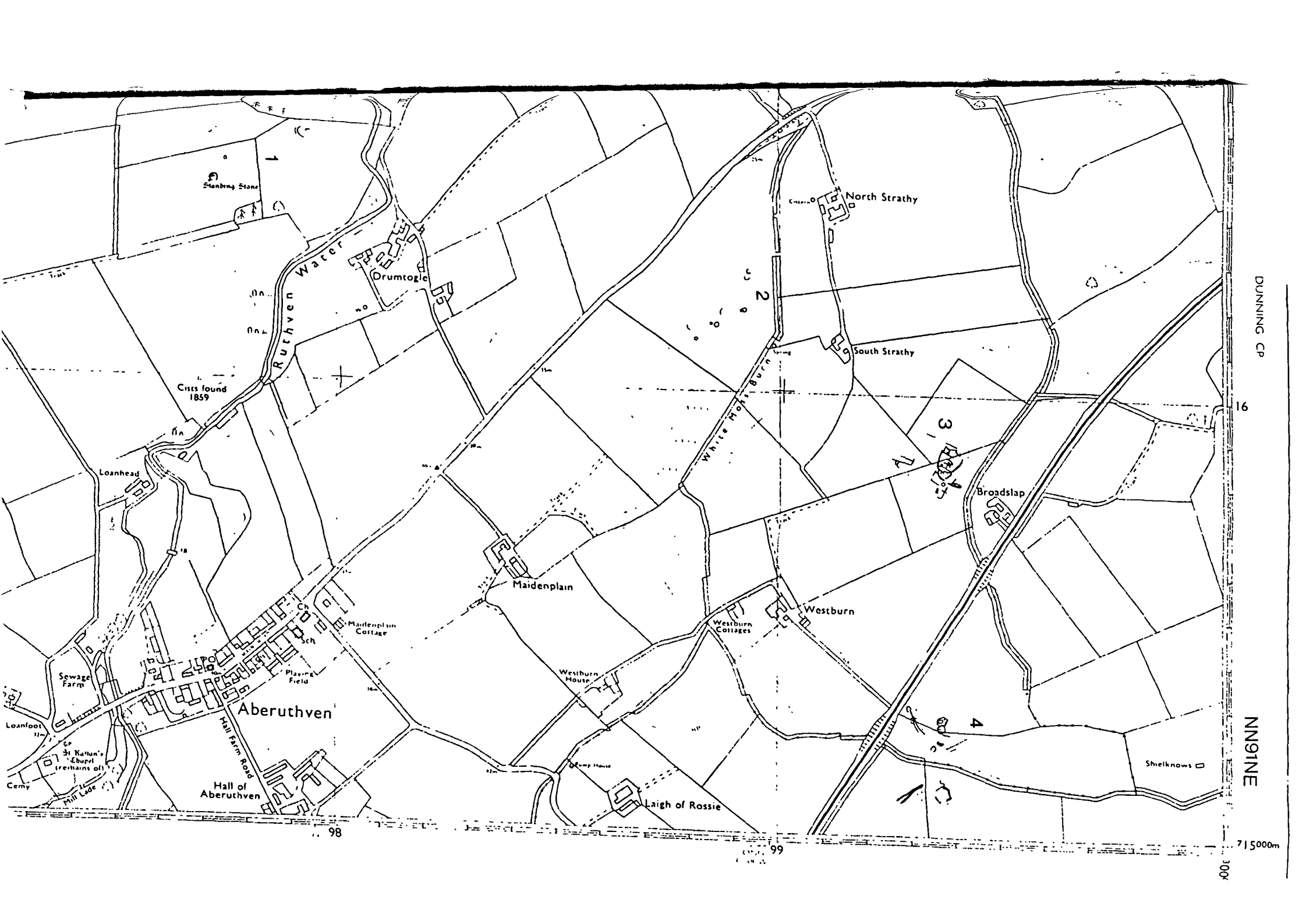

KINROSS AND WEST PERTHSHIRE CO CONST
NN91SW
94
Monkscroft
Home Farm
North Lodge
Whitefold Cottage
Whitefold
Whitefold Wood
West Kirkton
St Mackessog's Church (remains of)
West Kirkton Cottage
Sheep Wash
Kirkton Burn
Kirktonpark
Kirktonlees
Kirktonlees Easter Strip
Castle Mains
Greenbank
Works
El Sub Sta
Auchterarder Castle (remains of)
Castleton
Lower Borland Park
Coll Earn
Playground
Castle Lodge
Piggery
School
Castleton Road
Church
El Sub Sta
Upper Borland Park
Castlebrae
Ochill Tower
St Margaret's Hospital
Gallowhill
Cistern (covered)
Public Park
Works
Lodge
AUCHTERARDER


BM 61 91m
GP
Weir
FB
Track
Drain
Coul
Ashfield
BM 71 67m
Station (dis)
Thornton House
Quarry (dis)
Woodend Cottage
Clover Hatcheries
Thorn
Dam
Drain
Lochie
BM 100 03m
Cattle Grid
Nether Clean
Spr
Path
Lochie Cottage
BM 175 35m
Butend
Clean
Orgil Hill
Pothill
Eind
Issues
Eind Plantation
Foswell
Foswell Low Wood
Upper Clean
Quarry (dis)
Green Hallar
Sheep Wash
Boat House
Headdyke
Bullshill
Foswell High Wood
LONG 3° 41'W
96
97
40'
NN91SE


TAYSIDE REGION
PERTH AND K
LONG 3° 41'W
96
Fish Pond
Kirklands of Damside
Newbigging
Kirkton Burn
Tennis Court
Damside House
Pothill
Track
Drain
East Kinbeon
BM 45 17m
Nether Coul GP
Shinafoot
Pow Hillock
South Lodge
Castle Garrick
Telephone Repeater Station
Ruthven Water
Foxwell Coul
Playground
Weir
Sewage Works
Millbank
Sunnybrae
Sewage Works (disused)
Mill Lade (dis)
Path
Broadfold
Broadfold Cottage
Glenruthven Hill
Eastmill Farm
Ruthvenvale Mill
Lodge
Milton
GP
Coul

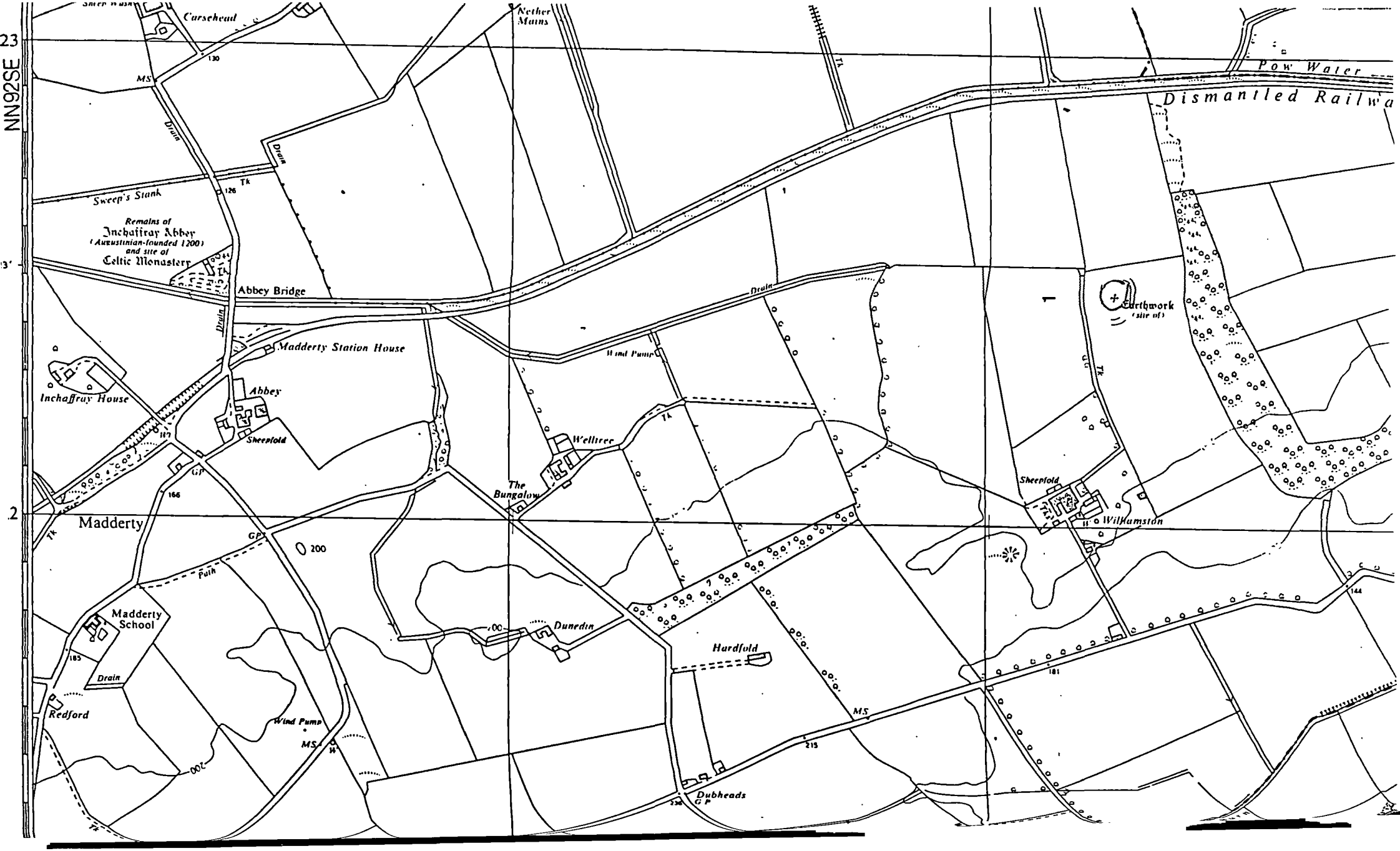

Mains of Innerpeffray
Cobiehaugh
Free Library (founded 1691)
The School House
Innerpeffray Chapel
ROMAN CAMP (site of)
South Mains
Innerpeffray Castle
ROMAN SIGNAL STATION
Parkneuk Cottage
Gelly Burn
ROMAN CAMP (site of)
Shearerston
ROMAN ROAD (course of)
Gelly Strip
Crow Wood
Muir o' Lea
Auchinglen
Auchinglen Cottage
Auchinglen Wood
Colquhalzie
West Lodge
Forester's Cottage
West Maints
Colquhalzie Wood
Craigmill Cottage
Craig Shot
Earthwork (site of)
Gardeners House
NN91NW

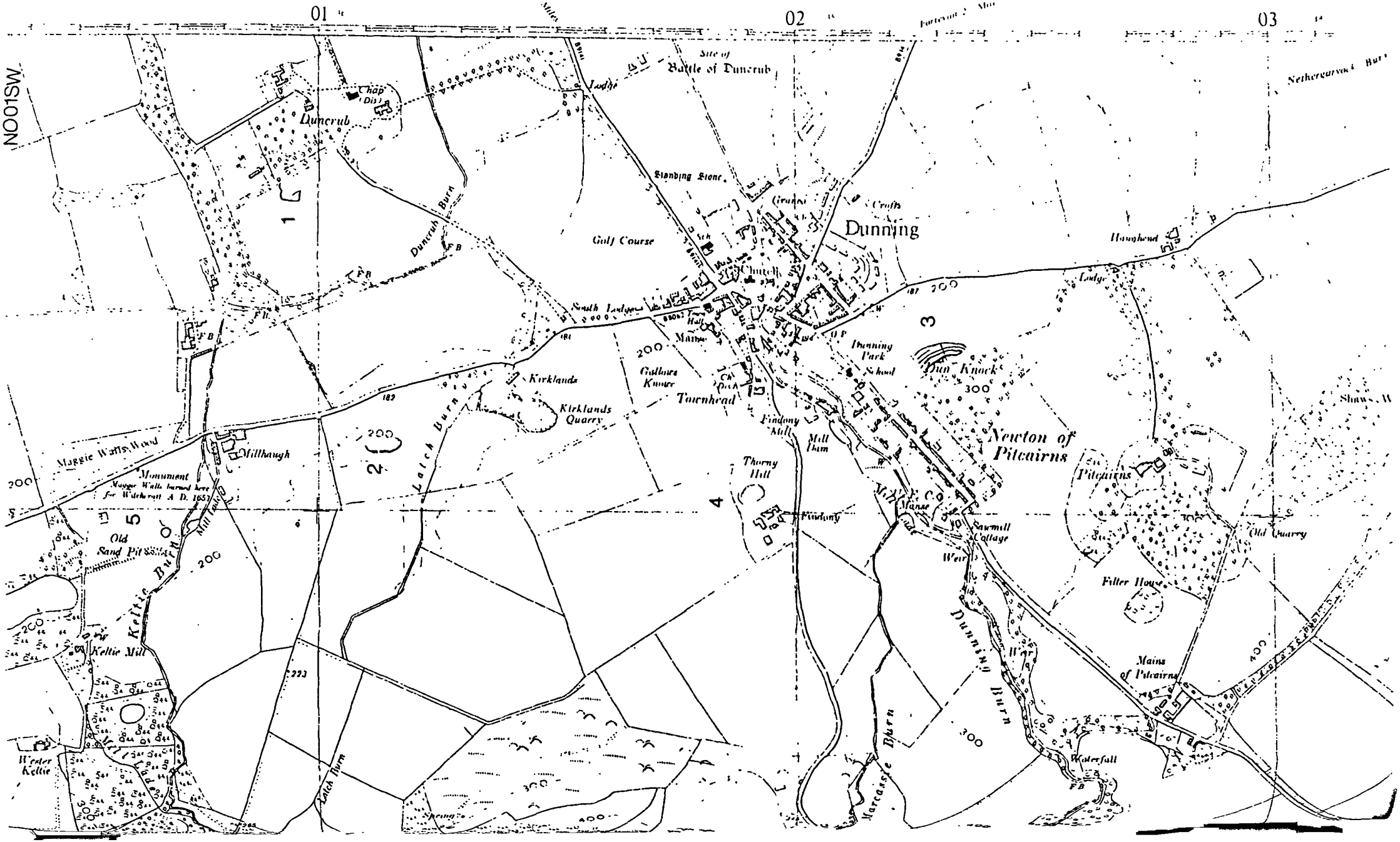

NN91NW
East Mains
Mills of Earn
River Earn
Weir (disused)
Path
Cruive Cottage
County Roadman Cottages
Kinkell Bridge
Old Toll House
North Kinkell
North Mains
Cup marked Stone
Cairn
North Lodge
Strathallan Airfield
Kirkhouse
Church
Paddockhaugh
Machany Water
Boobank
Earnbarrock (site of)
Bernie
Calfward
Wallfauld Cottage
Wallfauld
Wallfauld Wood
Strathallan Castle
Belledstane Wood
Belled Stane
Bernie Wood
Pinker Burn
South Castle Wood
Machany Burn

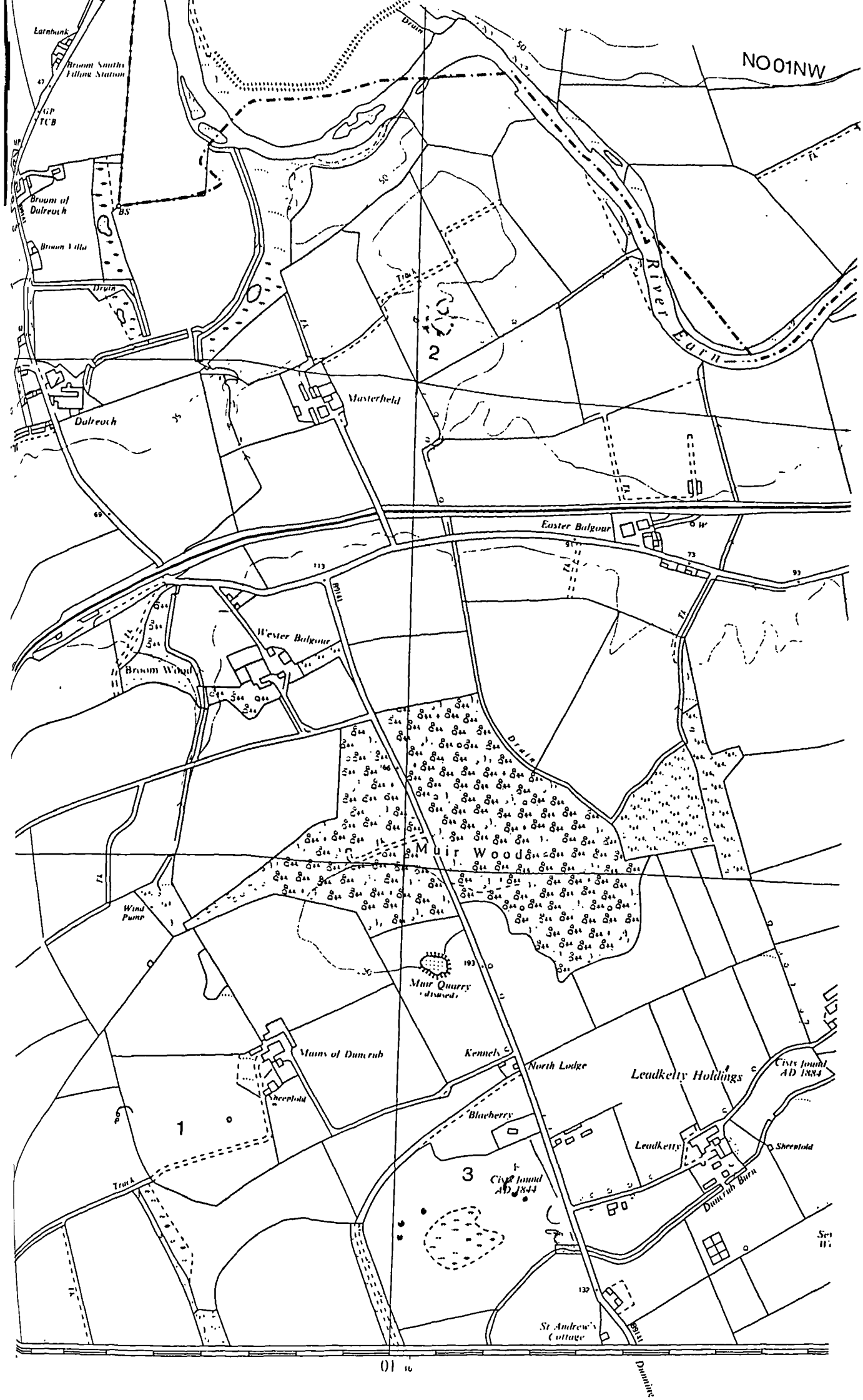

Standing Stone
Ruthven Water
Drumtogle
North Strathy
South Strathy
White Moss Burn
Cists found 1859
Loanhead
Broadslap
Maidenplain
Maidenplain Cottage
Westburn
Westburn Cottages
Westburn House
Aberuthven
Sewage Farm
Loanfoot
Cemy
St Kattan's Church (remains of)
Mill Lade
Hall Farm Road
Hall of Aberuthven
Laigh of Rossie
Shielknows
DUNNING CP
16
NN91NE
98
99
715000m

NN91NE

North Strathy
Millands
North Strathy Cottage
Orchard
Mill of Gask Cottages
Mill of Gask
Haugh of Aberuthven
Standing Stone
8
7
6
5

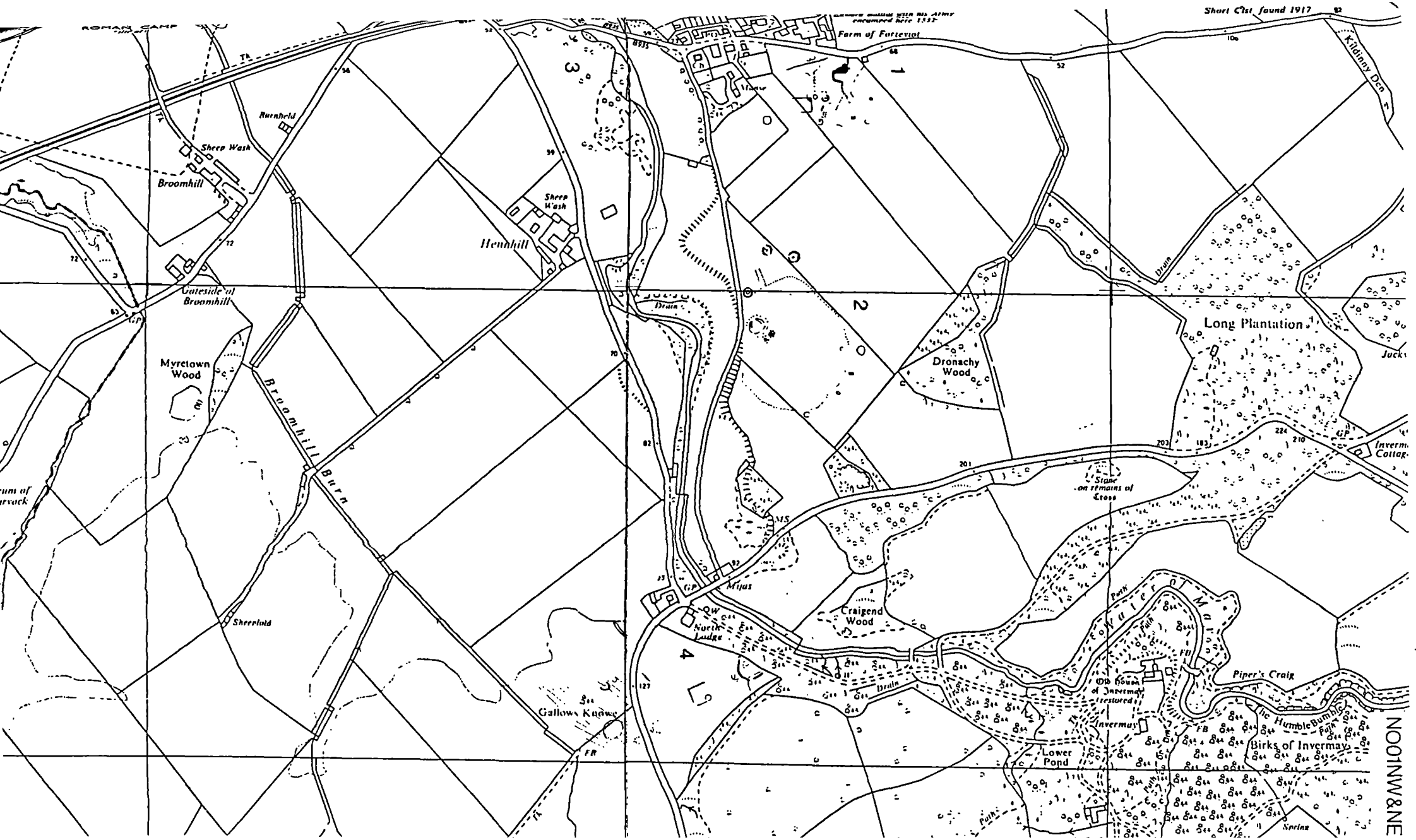

NN92SE
Carsehead
Nether Mains
Pow Water
Dismantled Railwa
Sweep's Stank
Remains of Inchaffray Abbey (Augustinian-founded 1200) and site of Celtic Monastery
Abbey Bridge
Drain
Madderty Station House
Inchaffray House
Abbey
Sheepfold
Wind Pump
Wellbree
The Bungalow
Earthwork (site of)
Sheepfold
Wilkamston
Madderty
Madderty School
Path
Dunedin
Hardfold
Redford
Wind Pump
Dubheads
GP
MS
Tk
W
200
215
181
144
185
166
130
126

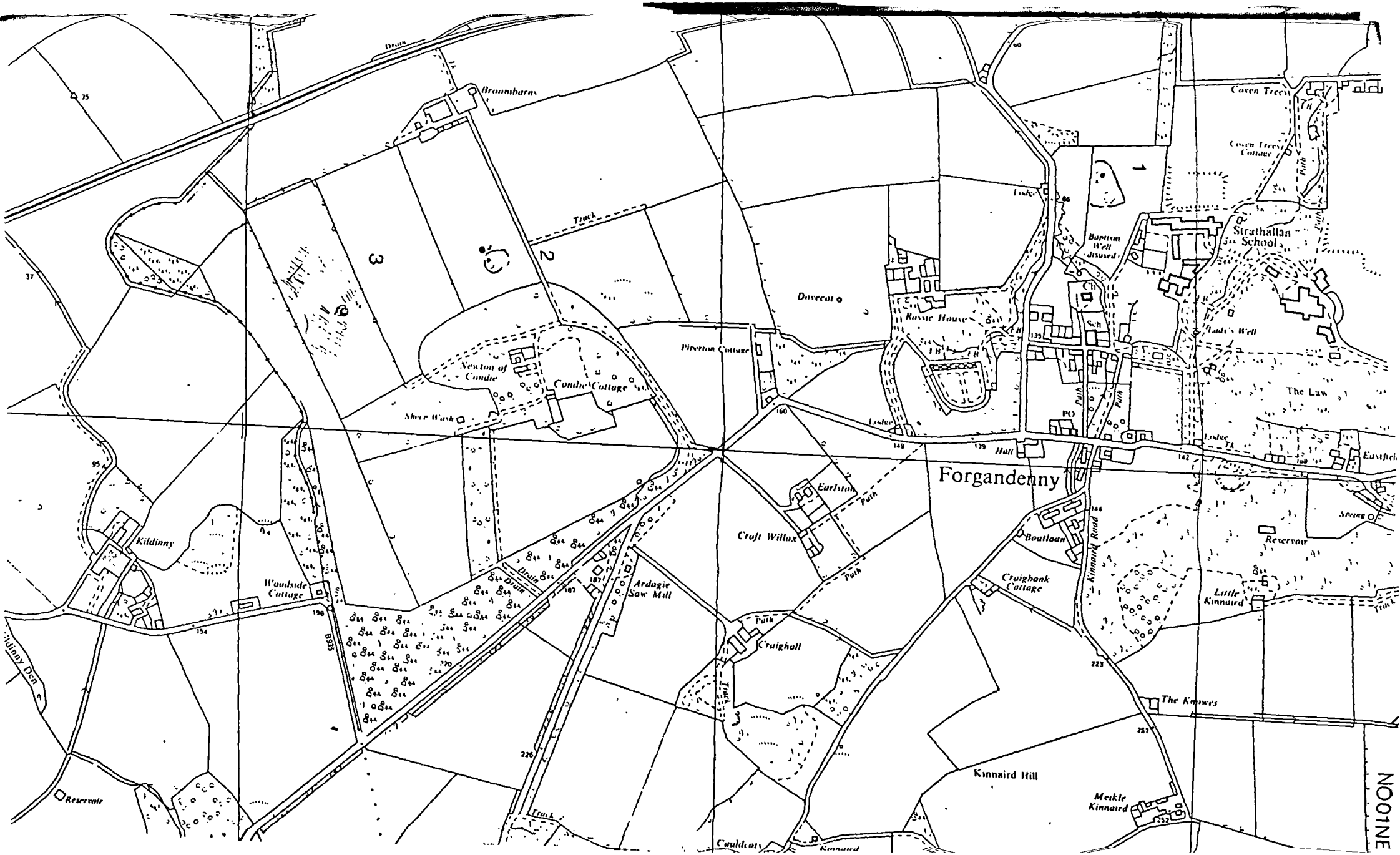

NO01SW
01
02
03
Site of Battle of Duncrub
Duncrub
Chap
Lodge
Standing Stone
Duncrub Burn
Golf Course
Dunning
Church
South Lodge
Manse
Kirklands
Kirklands Quarry
Gallows Knowe
Tournhead
Dunning Park School
Dun Knock
Haughead
Millhaugh
Maggie Wall's Wood
Monument
Maggie Wall burned here for Witchcraft A.D. 1657
Old Sand Pit
Kellie Burn
Kellie Mill
Wester Kellie
Loch Burn
Thorny Hill
Findony
Findony Mill
Mill Dam
Newton of Pitcairns
Pitcairns
Old Quarry
Cairnmill Cottage
Weir
Filter House
Dunning Burn
Mains of Pitcairns
Waterfall
Marcassie Burn
Nethercurran Burn

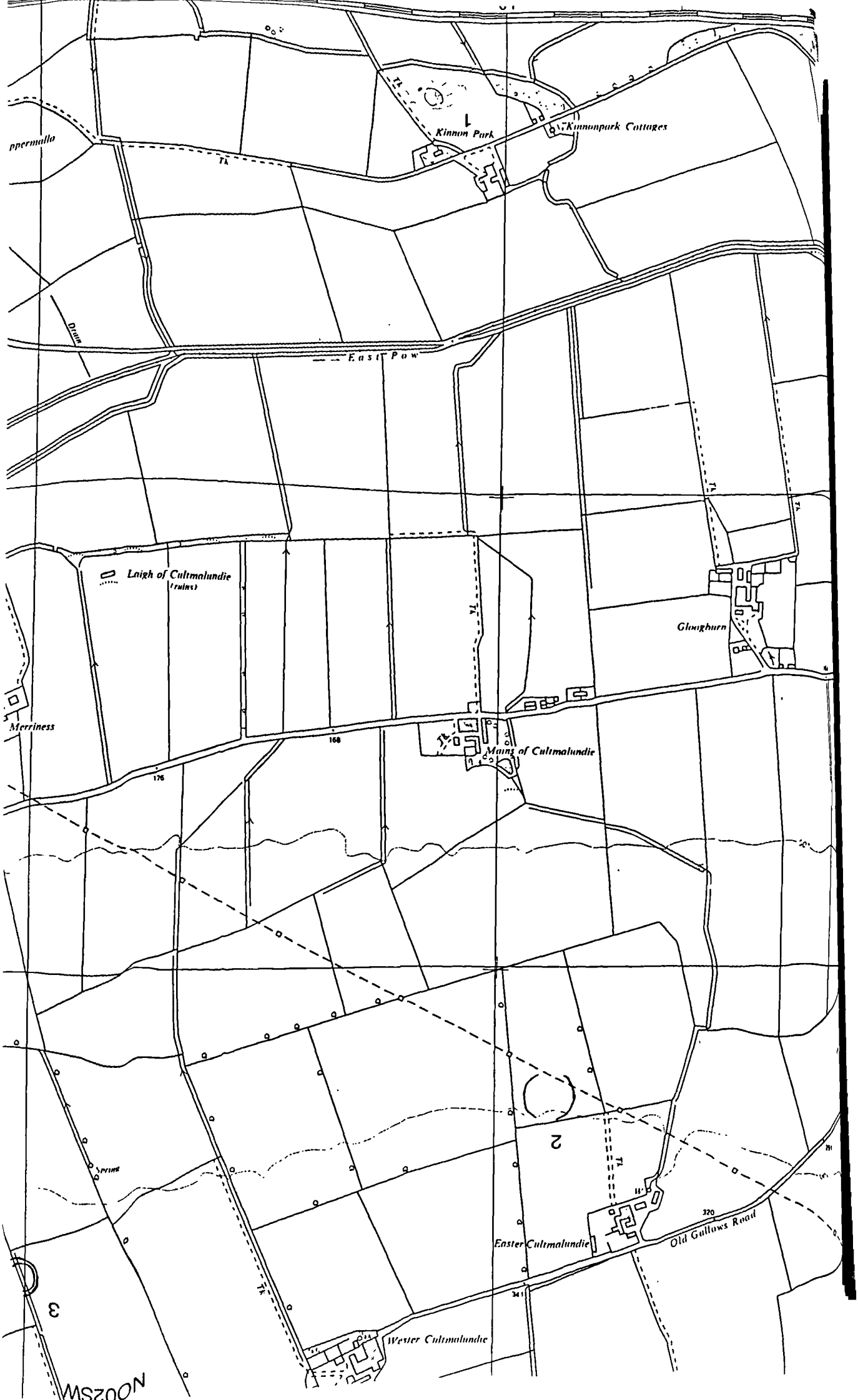

NO01NW
Broom South Filling Station
GP TCB
Broom of Dalreoch
BS
Broom Villa
Drain
River Earn
Masterfield
Dalreoch
Easter Balgour
Wester Balgour
Broom Wind
Muir Wood
Wind Pump
Muir Quarry
Mains of Dunrub
Kennels
North Lodge
Leadketty Holdings
Cists found AD 1884
Sheepfold
Blaeberry
Leadketty
Cists found AD 1844
Dunrub Burn
St Andrew's Cottage
Track
1
2
3

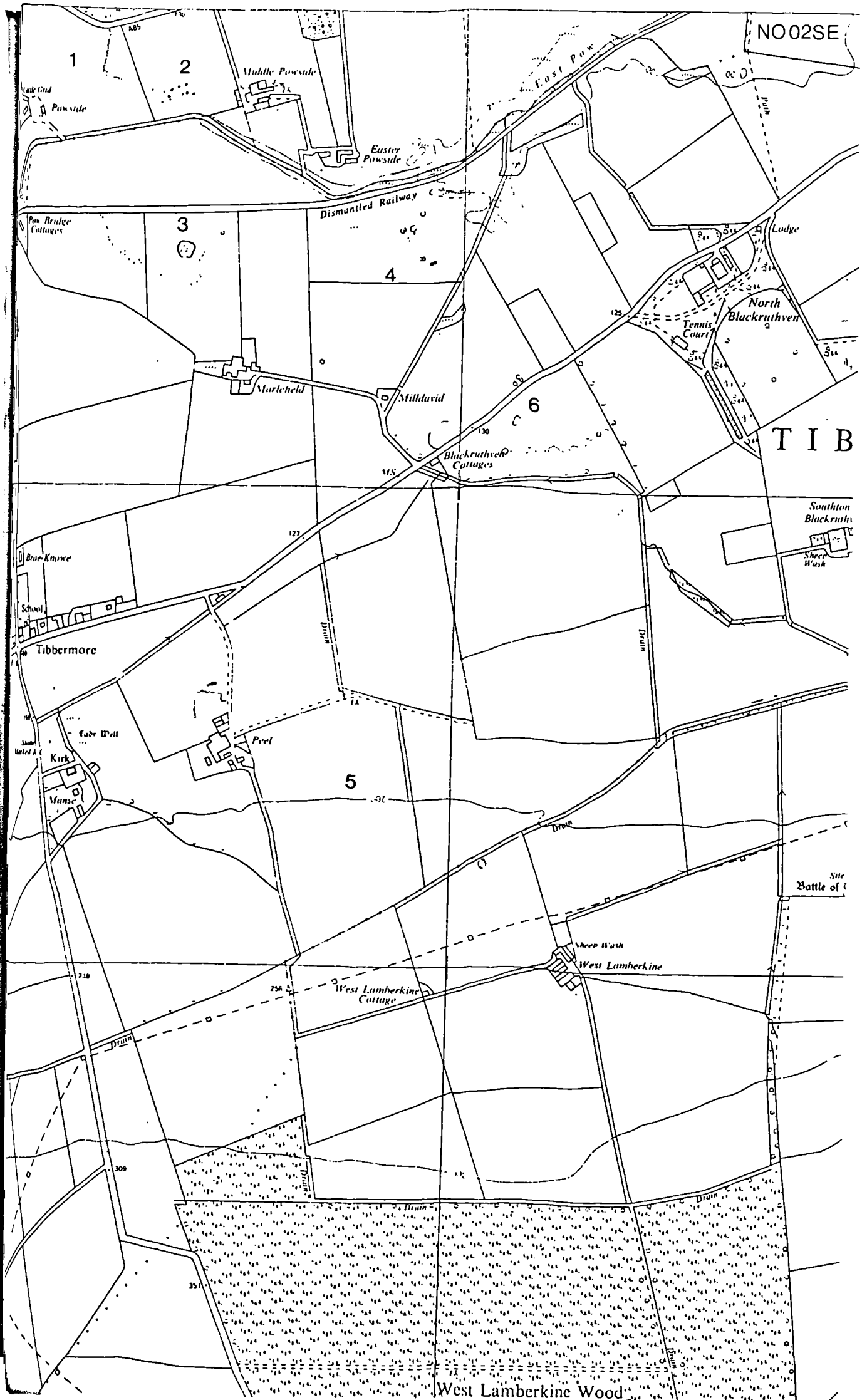
NO01NW
Broomhill Burn
Shrepfold
Drum of Garvock
Garvock Burn
Murrhead
Gateside
Garvock Wood
Nether Garvock
Inverbervie House
Mill Dam
Dunnin Burn
Kinclaive Wood
Sewage Works
8
9
7
6
5
4

19
LAT 56 21'
Millhaven of Aberdalgie 2 Vales
Drain
Patterton Wood
Parsonage Strip
Site of Battle of Dupplin AD 1332
Old Parsonage
The Old Parsonage
Bankhead
Bankhead Den
Farretoun Bridge
Jubilee Plantation
The Four Acre
11
Burnside Wood
Carnemeur Plantation
Carnemeur Wood
10
Glenhead Dens
Glenhead
Upper Cairnie
Sheerhold
Wester Cairnie
Sheep Wash
Pitcairnie Loch
Wood
A912
A85
A9(T)
333
340
330
320
310

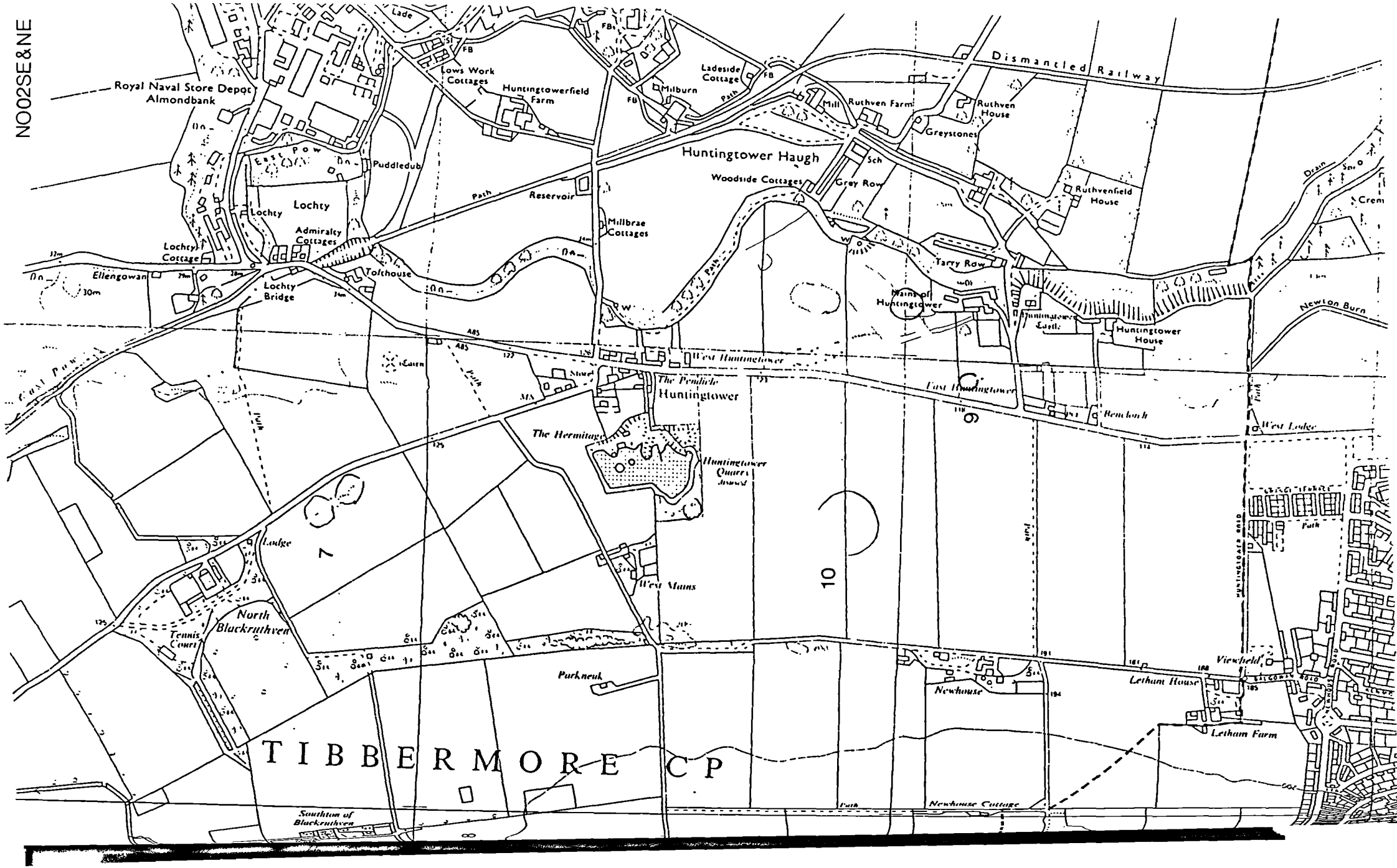

Roman Camp
Sheep Wash
Broomhill
Burnfield
Hennhill
Sheep Wash
Gateside of Broomhill
Myretown Wood
Broomhill Burn
Sheerfold
Gallows Knowe
Farm of Forteviot
Short Cist found 1917
Kildinny Den
Long Plantation
Dronachy Wood
Stone on remains of Cross
Craigend Wood
North Lodge
Old House of Invermay restored
Invermay
Lower Pond
Piper's Craig
The HumbleBumble
Birks of Invermay
Spring
NO01NW&NE

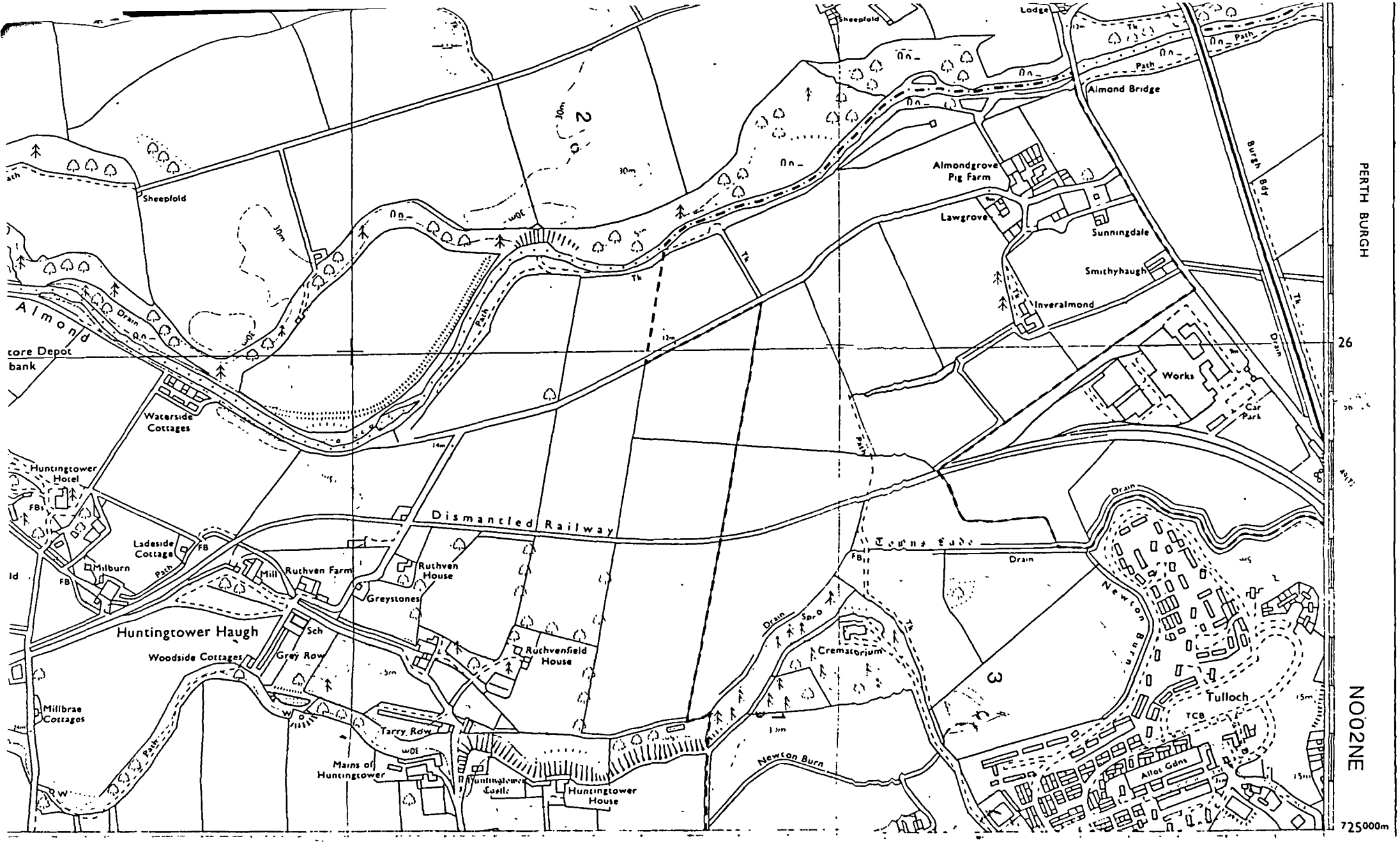

Broombarns
Drain
Track
Dovecot
Pitcorthie Cottage
Newton of Condie
Condie Cottage
Sheer Wash
Rossie House
Baptism Well (disused)
Strathallan School
Lady's Well
Coven Trees
Coven Trees Cottage
The Law
Forgandenny
Earlshall
Croft Willox
Boatloan
Kinnaird Road
Reservoir
Spring
Craigbank Cottage
Little Kinnaird
Kildinny
Woodside Cottage
Ardargie Saw Mill
Craighall
Track
The Kinnaes
Kinnaird Hill
Meikle Kinnaird
Cauldcots
Kinnaird
Reservoir
B935
NO01NE

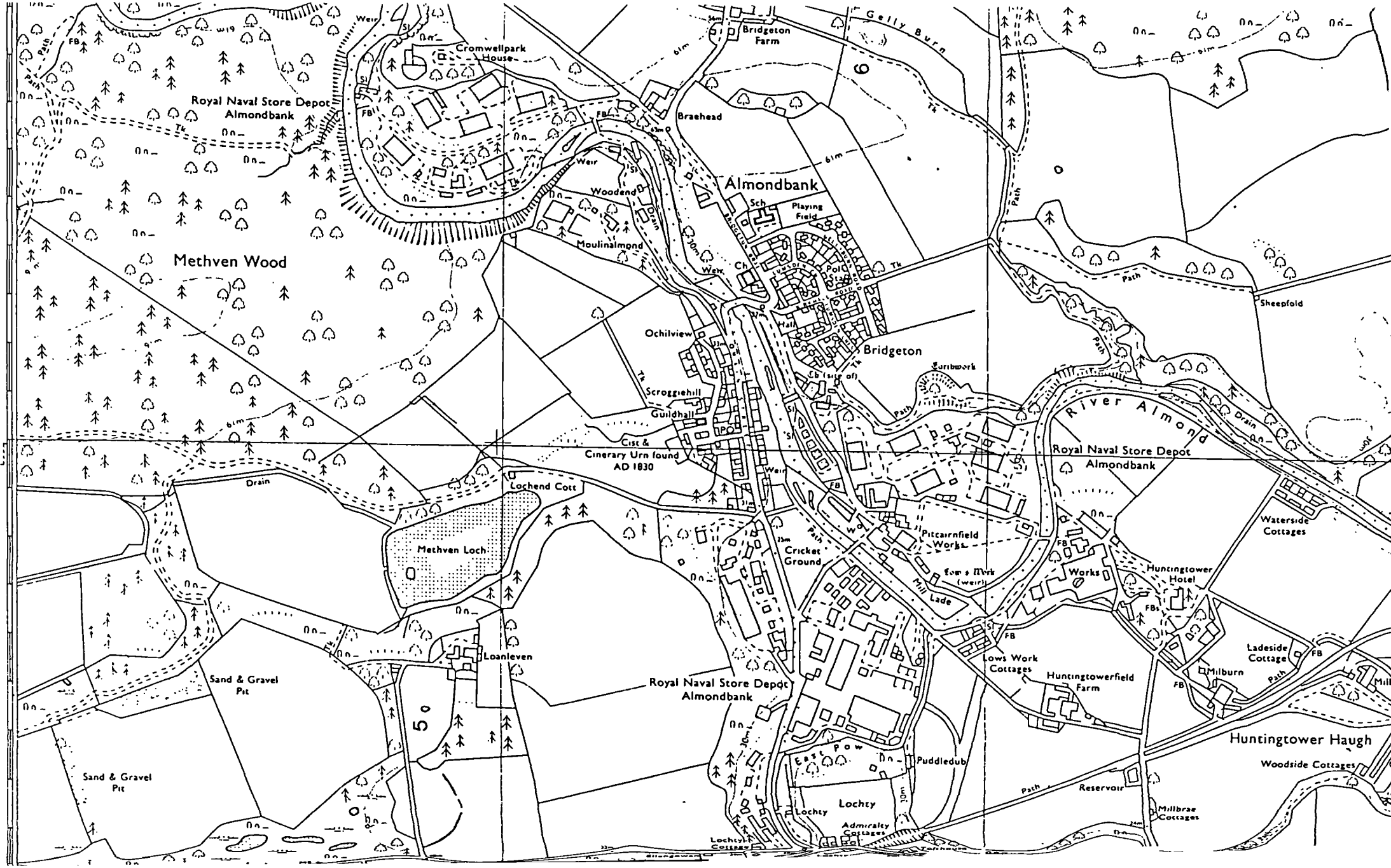

Kinnon Park
Kinnonpark Cottages
East Pow
Leigh of Cultmalundie
(ruins)
Glenghurn
Merriness
Mains of Cultmalundie
Easter Cultmalundie
Old Gallows Road
Wester Cultmalundie
168
176
320
341


NO02SE
1
2
3
4
5
6
Middle Powside
Easter Powside
Dismantled Railway
Pow Bridge Cottages
Lodge
North Blackruthven
Tennis Court
Marlefield
Milldavid
Blackruthven Cottages
Brae-Knowe
School
Tibbermore
Kirk
Manse
Peel
Drain
Sheep Wash
West Lamberkine
West Lamberkine Cottage
West Lamberkine Wood


NO02SE
Cup & Ring marked Stone
Site of
Battle of Tibbermore
Sheep Wash
West Lamberkine
West Mid
Lamberkine
East Mid
Lamberkine
East
Lamberkine
Hillend
Braxden Farm
Lamberkine
Quarry
(disused)
West Lamberkine Wood
Lamberkine Wood
Cotton Wood
Drain
Path
11


NO02SE&NE
Royal Naval Store Depot
Almondbank
Lade
Lows Work Cottages
Huntingtowerfield Farm
Milburn
Ladeside Cottage
Dismantled Railway
Mill
Ruthven Farm
Ruthven House
Greystones
Huntingtower Haugh
Woodside Cottages
Grey Row
Ruthvenfield House
Puddledub
Reservoir
Lochty
Admiralty Cottages
Millbrae Cottages
Lochty Cottage
Ellengowan
Lochty Bridge
Tollhouse
Tarry Row
Mains of Huntingtower
Huntingtower Castle
Huntingtower House
Newton Burn
West Huntingtower
East Huntingtower
The Pendicle
Huntingtower
The Hermitage
Huntingtower Quarry
Lodge
West Mains
North Blackruthven
Tennis Court
Parkneuk
Viewfield
Lethum House
Newhouse
Lethum Farm
Newhouse Cottage
Southtun of Blackruthven
TIBBERMORE CP
7
10
9


Sheepfold
Lodge
Almond Bridge
Almondgrove Pig Farm
Lawgrove
Sunningdale
Smithyhaugh
Inveralmond
Works
Car Park
Burgh Bdy
PERTH BURGH
26
Almond
tore Depot
bank
Waterside Cottages
Huntingtower Hotel
Dismantled Railway
Ladeside Cottage
Milburn
Mill
Ruthven Farm
Ruthven House
Greystones
Huntingtower Haugh
Sch
Woodside Cottages
Grey Row
Ruchvenfield House
Millbrae Cottages
Tarry Row
Mains of Huntingtower
Huntingtower Castle
Huntingtower House
Newton Burn
Crematorium
Spr
Tulloch
TCB
Allot Gdns
NO02NE
725000m


NO02NE
26
Royal Naval Store Depot
Almondbank
Cromwellpark
House
Bridgeton
Farm
Gelly Burn
Braehead
Almondbank
Sch
Playing
Field
Woodend
Moulinalmond
Drain
Weir
Methven Wood
Ochilview
Bridgeton
Hall
Pol Stn
Ch
Sheepfold
Scroggiehill
Guildhall
Cist &
Cinerary Urn found
AD 1830
River Almond
Royal Naval Store Depot
Almondbank
Lochend Cott
Drain
Methven Loch
Cricket
Ground
Pitcairnfield
Works
Waterside
Cottages
Huntingtower
Hotel
Works
Mill Lade
Lows Work
Cottages
Huntingtowerfield
Farm
Ladeside
Cottage
Milburn
Loanleven
Sand & Gravel
Pit
Royal Naval Store Depot
Almondbank
Huntingtower Haugh
Woodside Cottages
Puddledub
Lochty
Admiralty
Cottages
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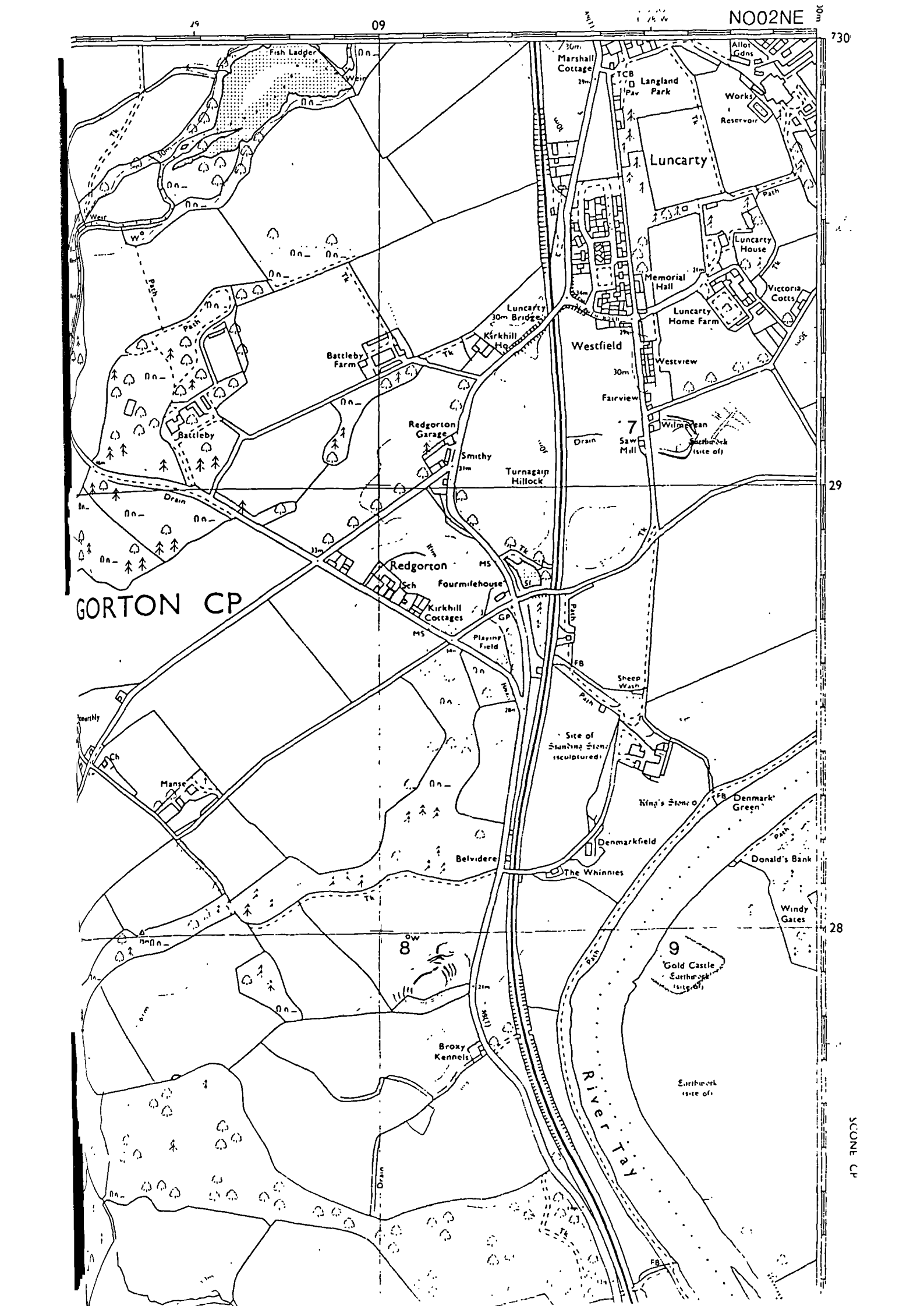
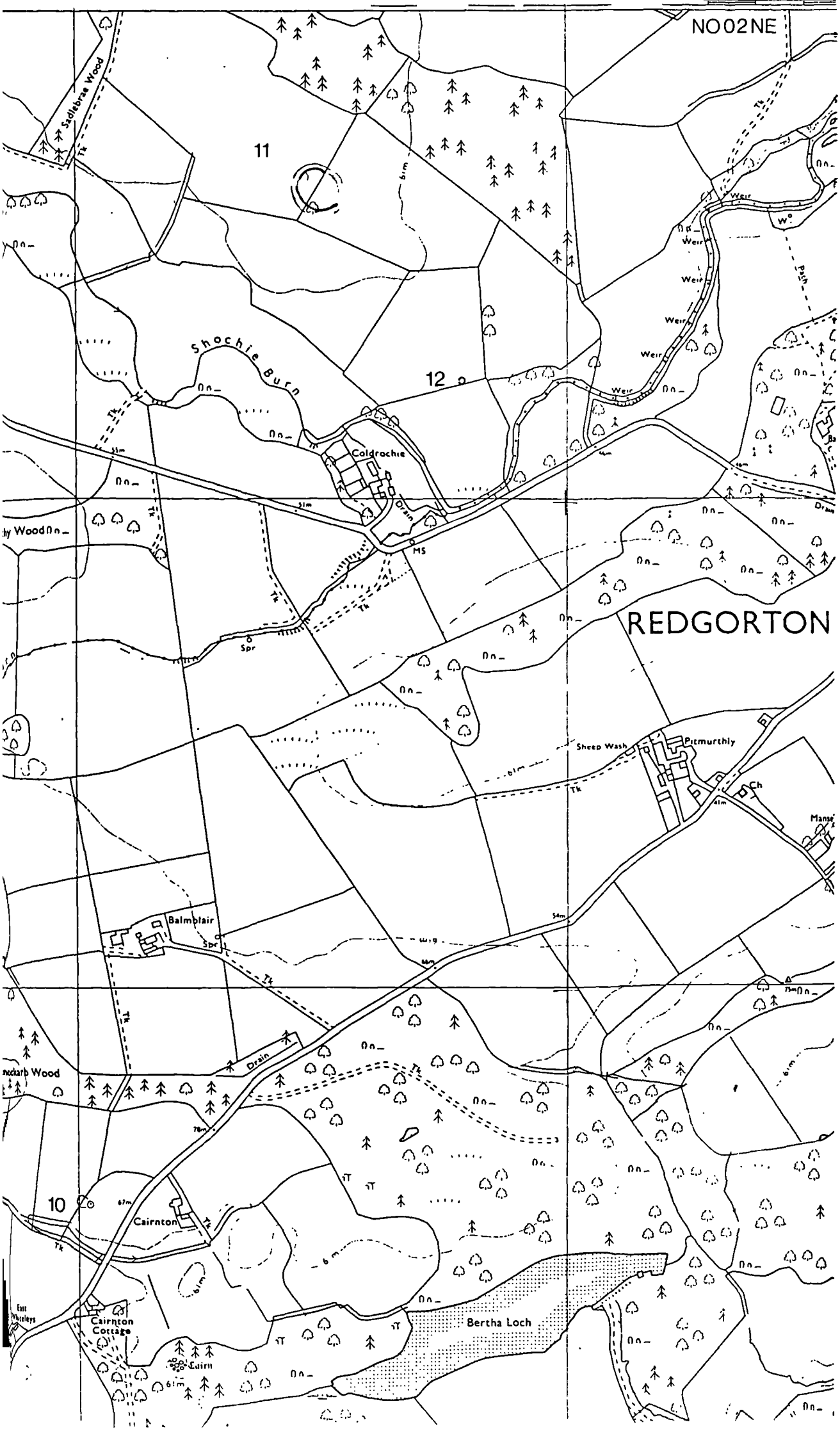
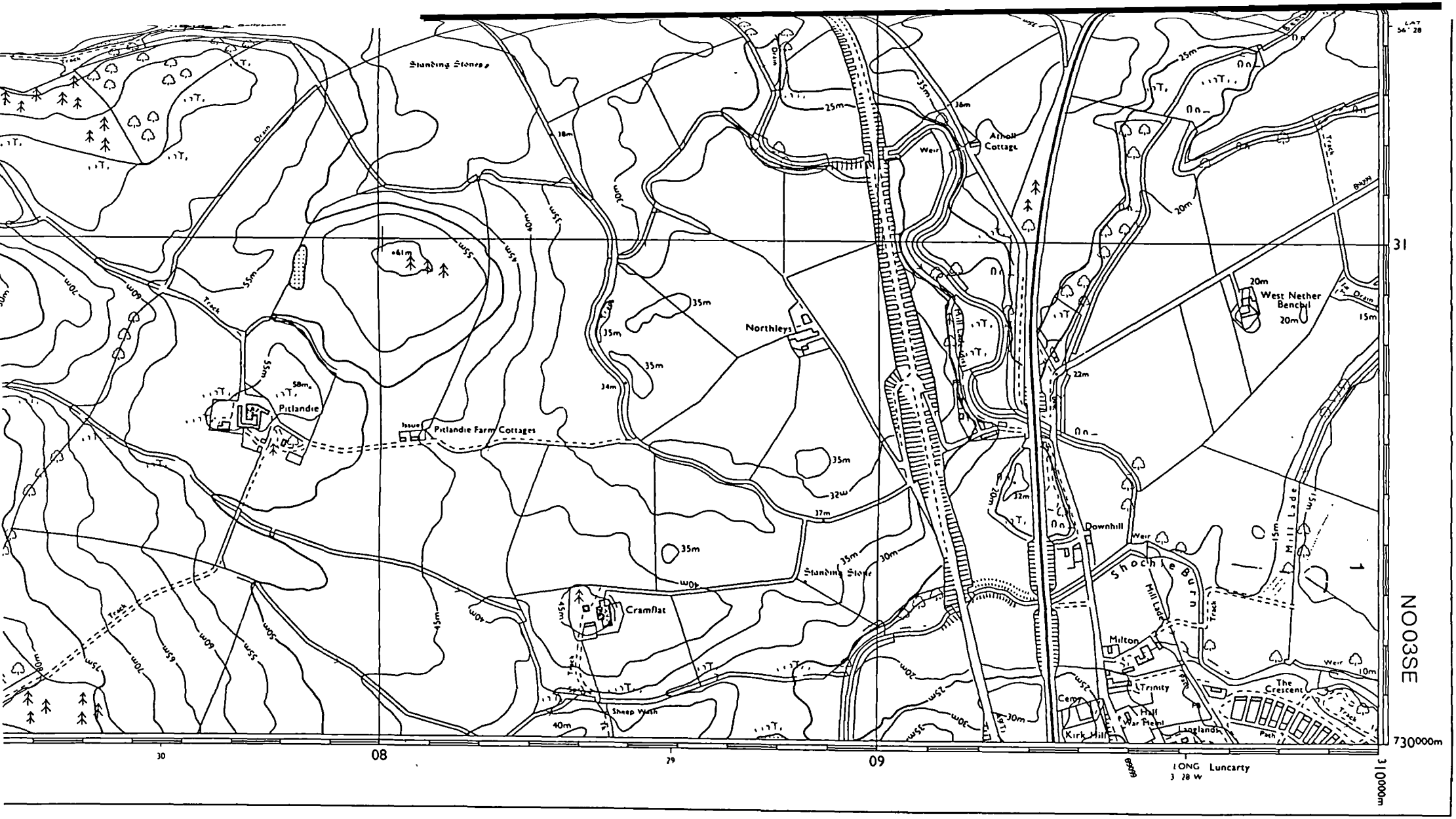
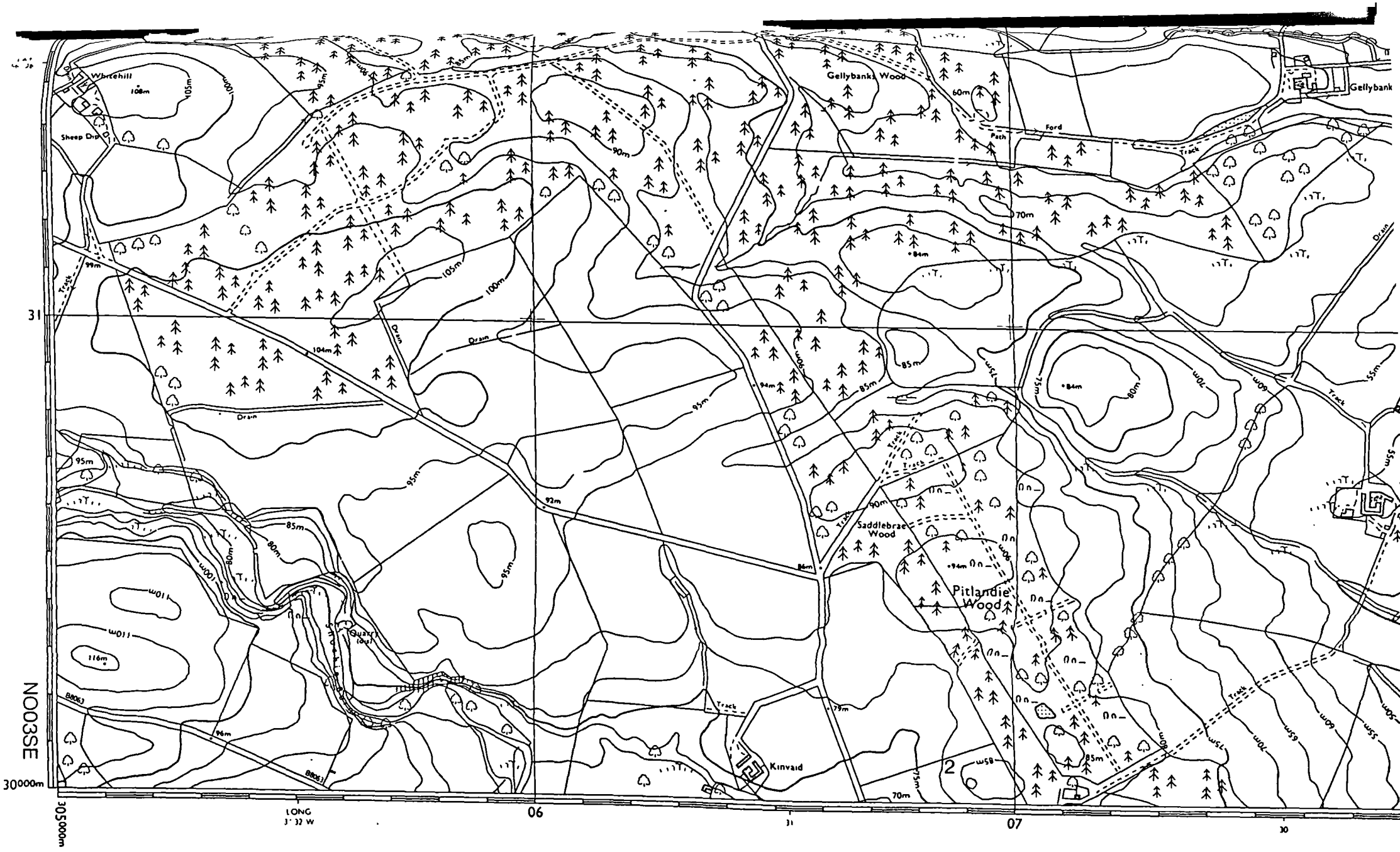
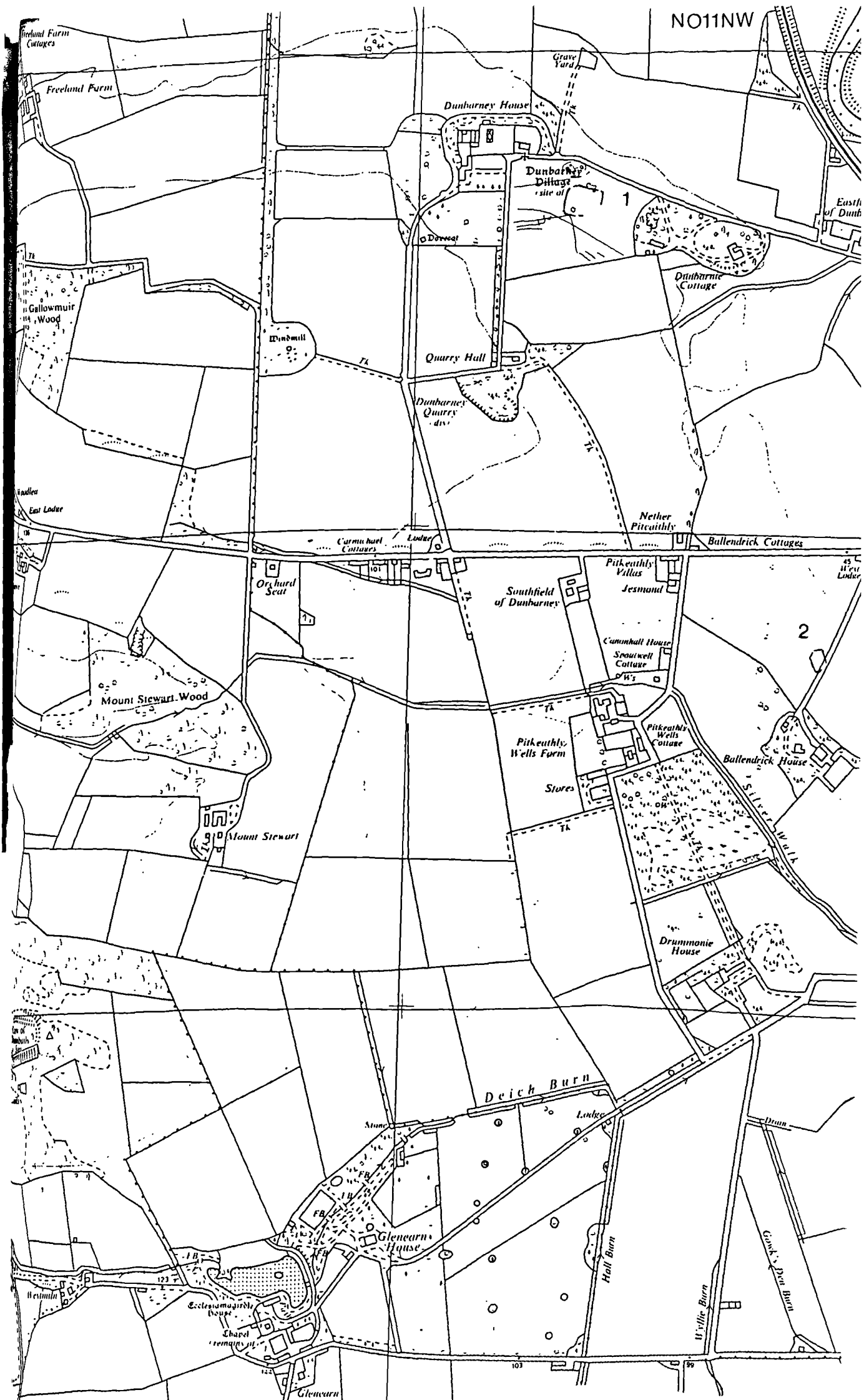
Millbrae
Cottages
Lochty
Cottages

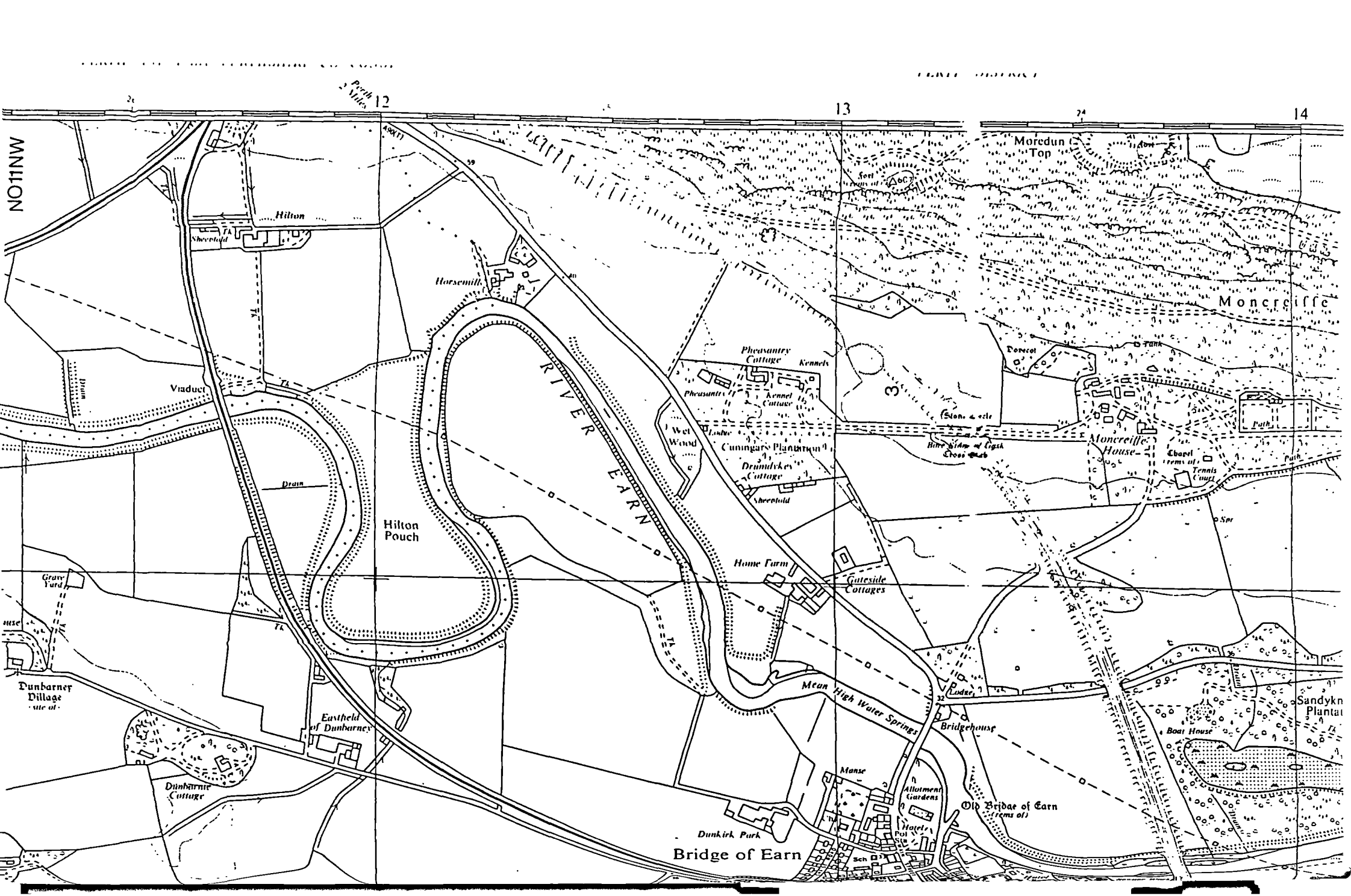

NO02NE
09
730
29
28
Fish Ladder
Weir
Marshall Cottage
TCB
Pav
Langland Park
Allot Gdns
Works
Reservoir
Luncarty
Luncarty House
Memorial Hall
Victoria Cotts
Luncarty Home Farm
Luncarty Bridge
Kirkhill Ho
Westfield
Westview
Fairview
Battleby Farm
Battleby
Redgorton Garage
Smithy
Turnagain Hillock
Drain
7
Saw Mill
Wilmerdean
Earthwork (site of)
Redgorton
MS
Sch
Fourmilehouse
Kirkhill Cottages
GP
Playing Field
FB
Sheep Wash
Path
Site of Standing Stone (sculptured)
King's Stone
Denmark Green
Denmarkfield
Belvidere
The Whinnies
Donald's Bank
Windy Gates
8
9
Gold Castle
Earthwork (site of)
Broxy Kennels
River Tay
Manse
Ch
GORTON CP
SCONE CP

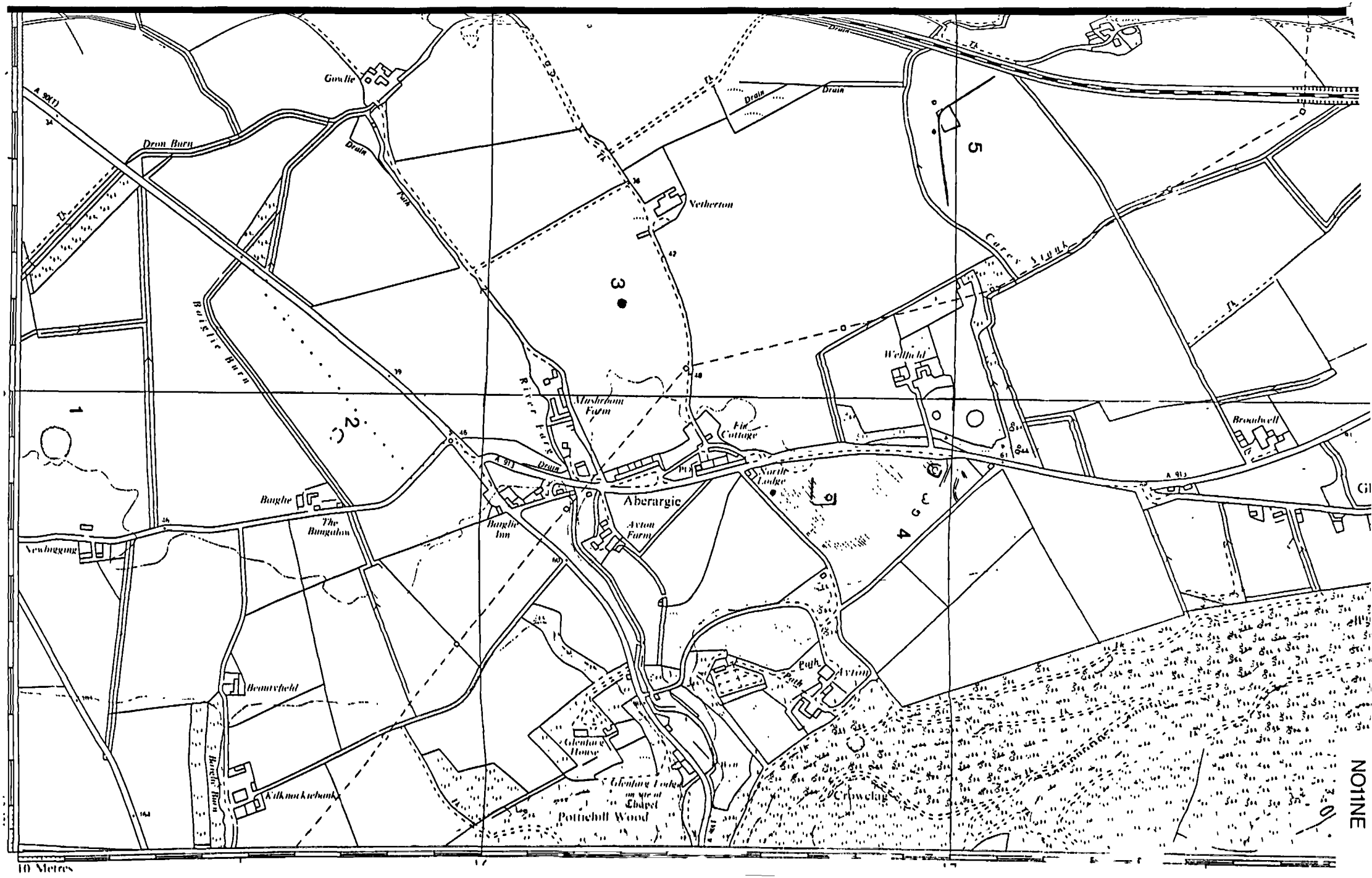

NO02NE
Saddlebrae Wood
11
Shochie Burn
12
Weir
Caldrochie
Drain
MS
Spr
REDGORTON
Sheep Wash
Pitmurthly
Ch
Manse
Balmblair
Spr
Drain
10
Cairnton
Cairnton Cottage
Bertha Loch
Cairn

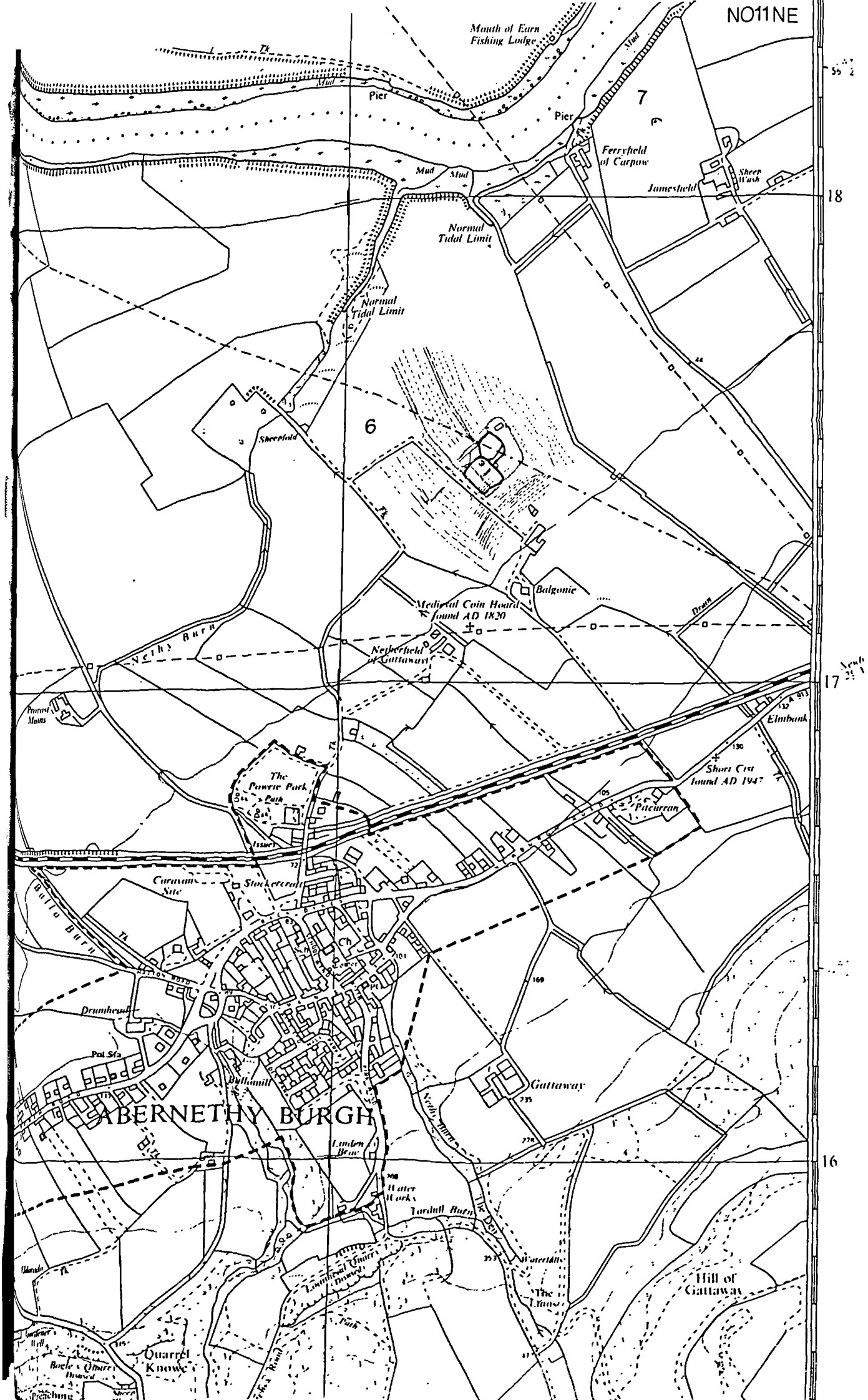

Standing Stones
Track
Drain
Pitlandie
Pitlandie Farm Cottages
Northleys
Cramflat
Standing Stone
Sheep Wash
Atholl Cottage
Weir
Mill Lade
West Nether Bench
Downhill
Shochie Burn
Milton
Trinity
Cem
Hall
War Mem
Kirk Hill
The Crescent
Laglands
Path
LONG Luncarty
3 28 W
NO03SE
730000m
310000m
30
08
79
09
31
1

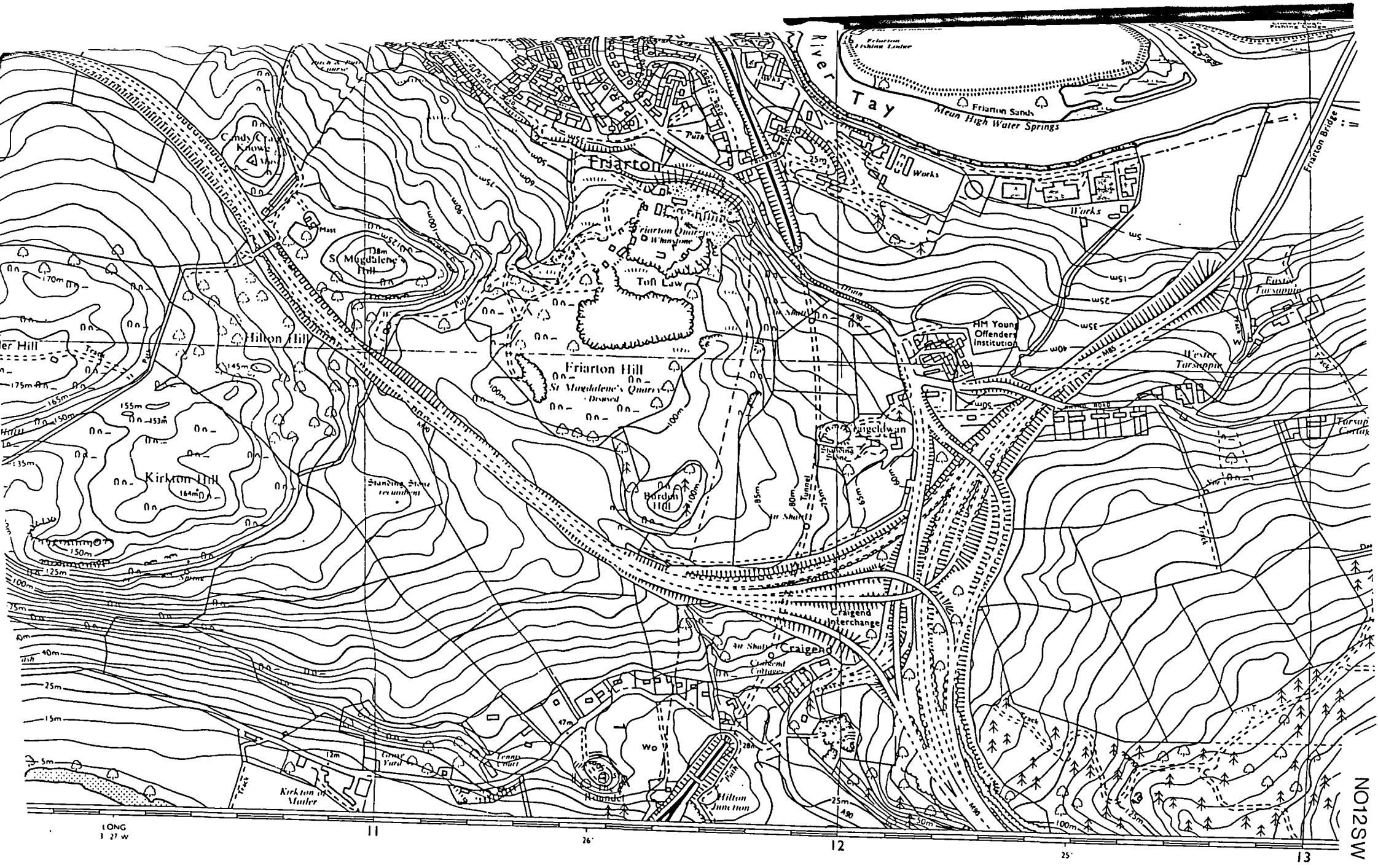

Whitehill
108m
Sheep Dip
Gellybanks Wood
Gellybank
60m
Ford
Path
Track
70m
84m
Drain
105m
100m
104m
95m
90m
85m
94m
92m
80m
75m
55m
Saddlebrae Wood
Pitlandie Wood
Quarry (Old)
116m
110m
Kinvaid
79m
B8063
96m
31
NO03SE
30000m
305000m
LONG 3° 32' W
06
07


NO11NW
Freeland Farm Cottages
Freeland Farm
Grave Yard
Dunbarney House
Dunbarney Village site of
1
Dovecot
Dunbarnie Cottage
Gallowmuir Wood
Windmill
Quarry Hall
Dunbarney Quarry
East Lodge
Nether Pitcaithly
Ballendrick Cottages
Carmuirhall Cottages
Lodge
Orchard Seat
Pitcaithly Villas
Jesmond
Southfield of Dunbarney
2
Carmuirhall House
Spoutwell Cottage
Mount Stewart Wood
Pitcaithly Wells Cottage
Pitcaithly Wells Farm
Ballendrick House
Stores
Silver Walk
Mount Stewart
Drummonie House
Deich Burn
Lodge
Glenearn House
Hall Burn
Gowk's Den Burn
Willie Burn
Ecclesiamagirdle House
Chapel (remains of)
Glenearn
103
99

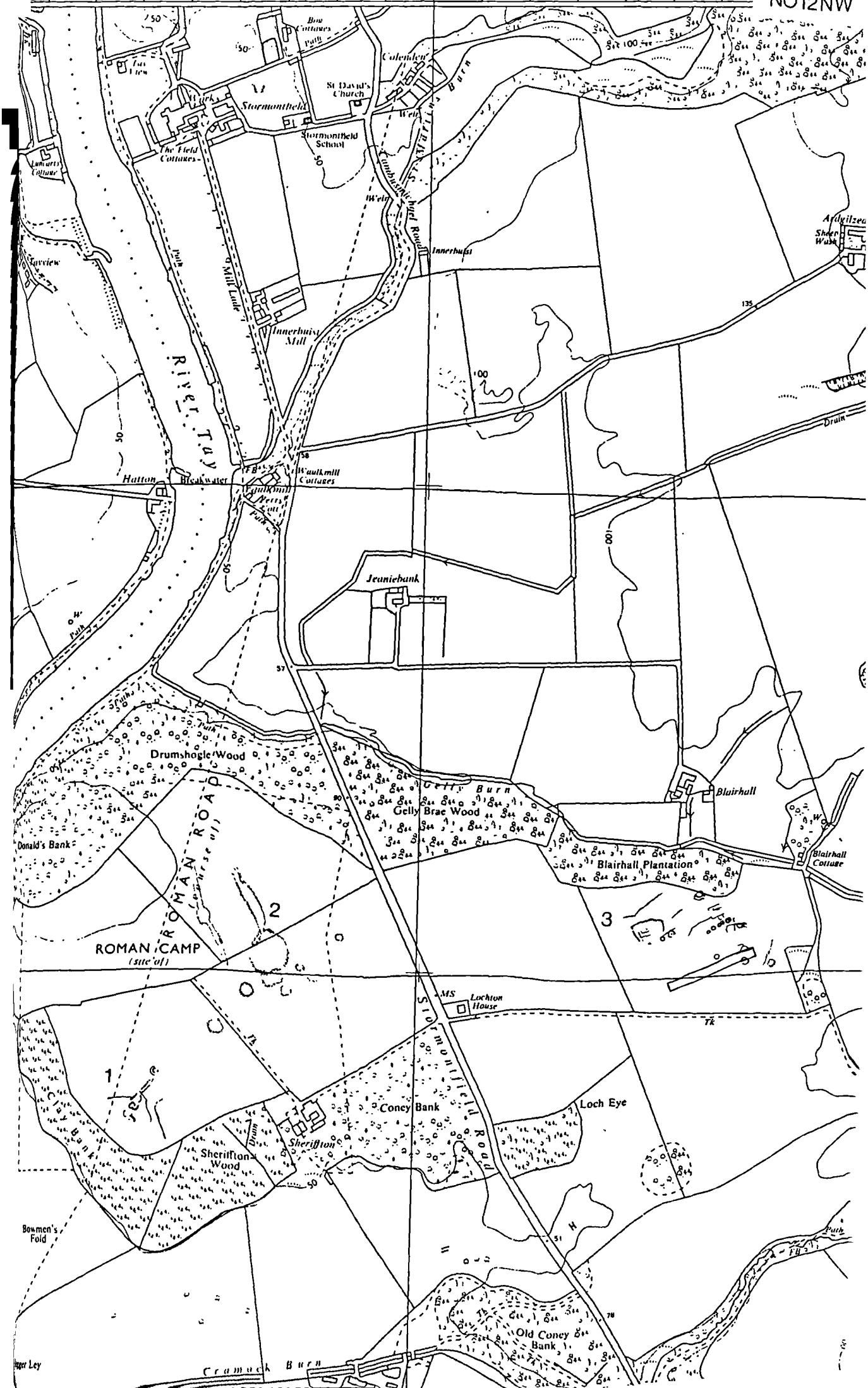

NO11NW
12
13
14
Hilton
Sheepfold
Horsemill
Viaduct
Drain
RIVER EARN
Hilton Pouch
Pheasantry Cottage
Kennels
Pheasantry
Kennel Cottage
Wet Wood
Cuningars Plantation
Drumdyke Cottage
Sheepfold
Home Farm
Gateside Cottages
Grave Yard
Dunbarney Village
site of
Eastfield of Dunbarney
Dunbarnie Cottage
Mean High Water Springs
Bridgehouse
Manse
Allotment Gardens
Old Bridge of Earn
(rems of)
Dunkirk Park
Bridge of Earn
Moredun Top
Moncreiffe
Dovecot
Moncreiffe House
Chapel
(rems of)
Tennis Courts
Boat House
Sandykn
Plantat
Lodge

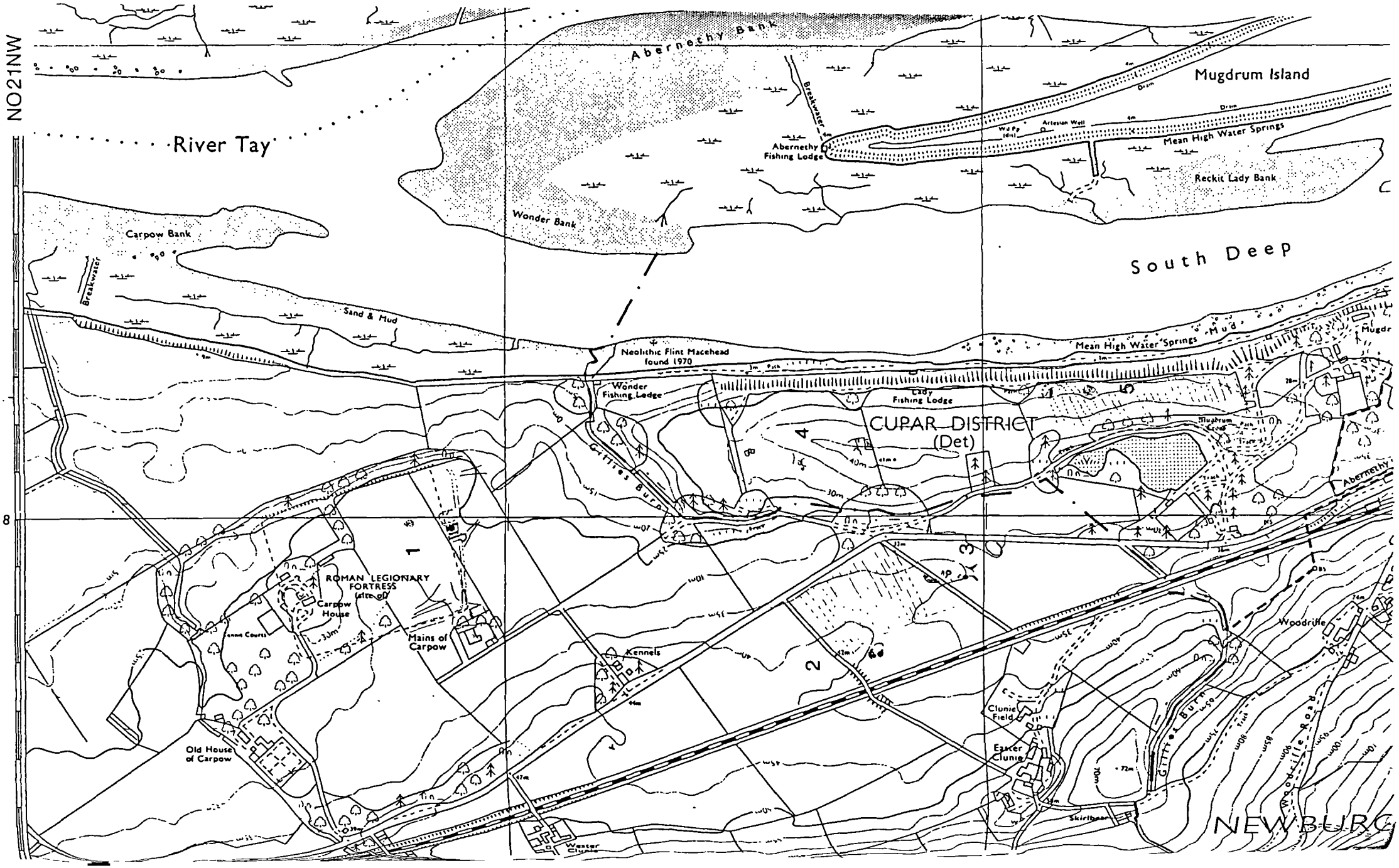

Gowlie
Dron Burn
Drain
Path
Vetherton
Carse Burn
Wellhill
Broadwell
Burstle Burn
River Farg
Mashlum Farm
Kiln Cottage
Turtle Lodge
A 913
Aberargie
Bungle
The Bungalow
Bungle Inn
Avton Farm
Newbiggins
Beanyfield
Kilkmackbank
Glenlow House
Glenlow Lodge
Chapel
Pottiehill Wood
Crowcliff
Path
Avton
5
3
2
1
4
NO11NE
10 Metres


NO11NE
Mouth of Earn Fishing Lodge
Pier
Pier
Mud
Mud
Mud
7
Ferryfield of Carpow
Sheep Wash
Jamesfield
18
Normal Tidal Limit
Normal Tidal Limit
6
Sheepfield
Balgonie
Medieval Coin Hoard found AD 1820
Drain
Netherfield of Gattaway
17
Elmbank
The Pewrie Park
Short Cist found AD 1947
Pitcurran
Caravan Site
Stockercraft
Drumhead
Pol Sta
Dullamill
ABERNETHY BURGH
Gattaway
16
Water Works
Tarduff Burn
Hill of Gattaway
Quarrel Knowe


River Tay
Friarton
Friarton Sands
Mean High Water Springs
Works
Friarton Bridge
St Magdalene's Hill
Ton Law
Friarton Hill
Hilton Hill
Kirkton Hill
HM Young Offenders Institution
Craigeldwan
Craigend Interchange
Craigend
Eastern Tursappie
Western Tursappie
Standing Stone
Kirkton of Mailer
Hilton Junction
Roundel
Tunnel
LONG 3 27 W
11
12
13
NO12SW

NO12NW


Bow Cottages
Path
Colendeen
St David's Church
Stormontfield
Stormontfield School
The Field Cottages
Lochiarty Cottage
Burn
St Martin's
Weir
Cumbernauld Road
Innerbuist
Arfgilzea
Sheen Wash
Tayview
Path
Mill Lade
Innerbuist Mill
River Tay
135
100
Drain
Hatton
Breakwater
Faulkmill Cottages
Faulkmill
Perry Cott
Path
Jeaniebank
Path
Drumshogle Wood
Gelly Burn
Gelly Brae Wood
Blairhall
Donald's Bank
Blairhall Plantation
Blairhall Cottage
ROMAN ROAD
(course of)
2
3
ROMAN CAMP
(site of)
MS
Lochton House
Tk
1
Coney Bank
Loch Eye
Stormontfield Road
Sheriffton
Sheriffton Wood
Drain
Bowmen's Fold
Old Coney Bank
Crammock Burn
Path


NO21NW
River Tay
Abernethy Bank
Breakwater
Abernethy Fishing Lodge
Mugdrum Island
Drain
Artesian Well
Mean High Water Springs
Reckit Lady Bank
Wonder Bank
Carpow Bank
Breakwater
South Deep
Sand & Mud
Neolithic Flint Macehead found 1970
Wonder Fishing Lodge
Lady Fishing Lodge
CUPAR DISTRICT (Det)
Mud
Mugdr
Abernethy
Gattes Burn
ROMAN LEGIONARY FORTRESS (site of)
Carpow House
Mains of Carpow
Kennels
Old House of Carpow
Clunie Field
Easter Clunie
Woodrife
Skirlbaw
NEWBURG
8

Appendix II

The Book of Deer

The Book of Deer occupies a unique position among the relics of early Medieval Scotland. Not only is it the only manuscript to have survived from an eastern scriptorium but in the Book's Gaelic notitiae we have our earliest detailed evidence about the eastern tradition of land tenure which evolved from Pictish institutions. It is a difficult source. In part this is because it concerns Buchan and Moray, areas which are fairly obscure before the twelfth century, and in part because of its uniqueness within Scotland. These factors make it an awkward source for generalization. It is not however a neglected source; historians have long recognized the potential significance of the notitiae and Jackson's translation and commentary edition of the notes confirms their value as a source for the pre-Cistercian community (1972:97ff). Less attention has been paid to the gospel book itself. Although an early study reproducing many of the figures and some of the text in facsimile does exist (J. Stuart 1869), we are indebted to Kathleen Hughes for the only modern study of the manuscript (1980).

It is a small book of a type referred to as 'pocket-gospels' and seems to have been made in the early tenth century at a Scottish scriptorium, perhaps Deer itself. At a later date early in the twelfth century a series of notes in Middle Irish were introduced to record the various properties which had been donated to the monastic community over the years. These notes provide details of the donations and the conditions under which the properties were held. The temptation is strong to assume the

land holding customs represent a continuity of Pictish practices. If we wish to avoid being lumped with the romantic Pictomaniacs, then this continuity needs to be demonstrated,not just asserted; and as we will see identifying any Pictish elements in the notitiae involves a serious critical effort. The question of which elements of the social arrangements described in the notitiae stem from Pictish practices may be approached in two ways. One way is to make a close study of the content of the texts. This is a field for historical scholars and here I will follow the guidance of Kenneth Jackson, Kathleen Hughes, Wendy Davies and John Bannerman. The other approach is through a study of the social context of the text's composition and use. This means treating the Book as an artefact. In treating it as an artefact I do not mean simply measuring, drawing and describing the object, but I mean treating the Book as a vehicle for expression, which does not draw its meaning exclusively from the literal content of the words. These unread meanings are implicit in the way an artefact is made and used, and in this case derive from the symbolic qualities of the gospel texts as examples of the written word of God. An understanding of these implicit meanings is crucial for grasping the full significance of the book and is a necessary preface to any evaluation of the notitiae.

The Book of Deer belongs to an Irish tradition of book making. The pocket-gospels, so called because of their small size, are a peculiarly Irish sort of book which were designed for active preaching. Made small,they were convenient to carry and handy to use. In Ireland these books ceased to be composed by about c. 850-900 AD. The Book of Deer is placed at the tail end

of this tradition and has been dated to c. 900-950 AD (Hughes 1980:25). The text itself is an Irish mixture of Vulgate and Old Latin, which has been copied by a very inexpert latinist whose scribal errors often resulted in unintelligible passages and the fabrication of non-existent words. Hughes describes the text as 'exceptionally bad', but characterizes the hand as 'fluent and competent' (ibid:26). This suggests that the scribe had an intuitive grasp of Marshall McLuhan's epigram: the medium is the message. Of the four gospels which make up the bulk of the book only St.John's has been fully copied - a distinction which was significant. The illuminations are by contemporary standards very poor and resemble the text in the sense that the artist often appears not to have understood the exemplum from which he was working although he understood that the formal requirements of the medium included illuminations. These misunderstandings produce some interesting and telling results, for instance the St. Matthew portrait shows the evangelist holding a sword which has replaced the conventional Tau-crosier. These textual and illustrative anomalies have led Hughes to suggest that although in the Irish tradition, the Book of Deer was produced outwith Ireland. 'You would expect', she says, ' a Scottish scribe of the tenth century to be producing an Irish-style book with peculiar features. This is what Deer is' (ibid :37).

The most important clues to the ancient significance of the Book of Deer are found in the treatment of St.John's Gospel, which not only is distinguished by its completeness, but has been singled out for decorative elaboration. His portrait is graced with a cross and no less than six angels. Important passages in the text are emphasized with arabesques and marginal decorations.

This emphasis on St.John is not not unique to Deer, for in both the Anglo-Saxon and Irish church he was regarded as the preeminent evangelist (Hughes 1980:35). It may be that St.John's concern with Christ's spiritual qualities and his apocalyptic tone made his gospel more accessible to a western audience than were the biographically detailed synoptic gospels. His Jesus may have seemed more mystical, more god-like. Whatever the reason, St.John was regarded as the best carrier of the good news and was widely selected for special veneration. Somehow through this appreciation St.John came to be credited with powers of healing and regeneration. Hughes notes instances where the actual texts of St.John's Gospel were used in healing, and suggests that the inclusion of a portion of a mass for the sick in the Book of Deer links it with two other pocket-gospels which 'may have been used as a sacred object to help effect the cure just like any other relic' (1980:36). Thus before any of the notitiae were recorded in the Book it had a special status; it is likely that it was credited with healing properties and was therefore regarded as an instrument of God's work in a physical as well as a spiritual sense.

In view of the partial and flawed text I would suggest that its value focused on the object as a medium of divine agency, which it acquired from being an example of the 'word of God', rather than from the content or any of the moral lessons which might have been learned through reading the text or hearing it read. The Book of Deer then was as much talisman as it was text. It was valued for being an instance of writing and a source of magical phrases and prayers, rather than for its intellectual content. By the twelfth century the Book was an antique and when

the monks of Deer 'sought out their most valuable book in which to record their title-deeds, this was the most precious book they could find' (Hughes 1980:37). It will become clearer why this book of all books was chosen once we have considered what it was the monks set out to achieve by compiling these notitiae about their property.

The notitiae, which occupy several blank pages of the Book, are the work of the twelfth century. There are six Gaelic notes listing the various donations beginning with the legendary foundation by Columba and Drostan and continuing until the middle of the century. The Gaelic notes are followed by a Latin note referring to a royal confirmation of the properties, rights and privileges described in the notitiae which dates to about 1150. In Jackson's opinion several writers were involved in composing and amending the notes over a relatively short period of time 1100-1130. He believes that the notes were compiled in order to support a legal case, the outcome of which was David I's confirmation. From the wording of the royal confirmation it would appear that the monks had been suffering from local interference.

Jackson suggests an oral precedent for the notitiae extending back in the case of the legendary foundation note to the ninth century. Of the other notitiae he says, 'these were mere jottings, evidently based on common knowledge and tradition of the monastery's holdings.... The way they are noted strikes the reader as chaotic, without any proper chronological order, and this is just what would be expected of notes written up from oral information' (1972:95). This view, while possibly true with respect to the foundation legend, cannot be maintained for the other notes. We can take issue with Jackson's use of the word

chaotic to describe the notitiae. Davies has detected an orderliness in the notitiae and has used the fifth one to support her argument for the existence of a Celtic charter tradition in Pictland (1982:264-5). This charter tradition, she claims, is exclusively concerned with ecclesiastical donations and the records tend to survive as notes in Gospel books or incorporated into hagiographical works. They are often in the vernacular, although they derive ultimately from a Latin legal tradition. Davies compares the Deer notes to ones found in the the Book of Kells and the Book of Durrow, which she sees as being less elaborate than those composed at the great metropolitan centre, but very similar in content, formula and language. Bannerman draws further attention to a series of notitiae in the Registry of the Priory of St.Andrew's (composed c. 1107 AD) which appear to be Latin translations of notes originally 'written in the ancient idiom of the Scots' (Lawrie 1905:228, charter numbers 3,5,6,7,8,11,13,14,23 & 80). Thus one can argue that the 'chaotic' and 'amateurish' Deer notitiae should be seen as belonging to a wider legal tradition which, while not sophisticated, does demonstrate a good appreciation of the persuasive potential and legal force of writing. It should be noted that two eminent Scottish historians, G. Donaldson and A.A.M. Duncan (Duncan pers. comm.), remain unconvinced by Davies' arguments and regard the notes as too informal to represent a tradition of legal scholarship. Even if one accepts their criticism, we are still left with something more than chaotic scribblings. If nothing else we have an early Scottish example of the use of writing to secure tenure of property, which had been alienated from the traditional proprietors. It would seem that

the task of maintaining their estates led the monks to draw upon their most powerful book, to use the unchallengeable medium of writing, and to call in the king.

Although we must place the Deer notitiae firmly in the social context of the late eleventh and early twelfth centuries, except for the Latin confirmation and perhaps the final Gaelic note there is little to link them to the legal tradition of Normanized feudalism. Both the terminology and the types of grant are peculiarly Scottish and imply a legal tradition and social structure extending back perhaps into the Pictish era. To evaluate this we will have to look in some detail at the transactions themselves. The donations recorded in the notitiae were made by members of the nobility - king, mormaer, toisech - either alone or in collaboration. The donations might consist of two different privileges within the system of land tenure: a) superiority over an area of land or b) a portion of the revenues due from certain areas of land. It seems that in the Book of Deer each of the three ruling grades could have a share of the revenues of a single tract of land. Each cuit, meaning 'share' or 'cut', might be granted independently of the estate or conversely a mormaer or toisech could grant an estate while holding back their cuit. From this situation arises the legal term translated as 'quenching' which Jackson suggests absolved the monks from paying a cuit due on lands which they already held. It is important to note that both the cuit and 'quenching' belong to a legal vocabulary found only in Deer.

It would seem then that when granted an estate, the monastery received it as an 'ongoing concern', but that what they received was not land as such but 'superiority' over the land and

its inhabitants (John 1962:2). From their tenants the monastery received a certain cuit like any other lord and, like any other lord, the monastery might well be obliged to surrender their superior lord a cuit of their take. This explains why much of the content of the notitiae concerns rights to cuit rather than to estates as such. Obviously the most desirable grant was of an estate free and clear of any obligation to higher lords. The next best thing one suspects would have been an estate regardless of how encumbered by the cuit of higher lord(s). This is because a transfer of an estate included the inhabitants who probably became tenants of the monastery.

The individual transactions provide some interesting detail about the nature of landholding in the east. The term pett from 'piece' or 'parcel' of land refers to the basic socio-economic unit, which may be translated as 'estate' or 'township' and clearly included the inhabitants along with the real estate (Jackson 1972:114-6). The term gives rise to the pit- place-names which are generally taken as the best toponymic indication of Pictish settlement. The names of estates in the notitiae take two forms : pett may be either combined with a term describing some productive attribute of the land, like Pett in Muilinn, 'Pett of the Mill', or more interestingly the pett may be linked with a genitive form of a personal name, like Pett Meic-Garnait, 'Mac-Garnait's Pett', (but see above Chapter 11). In this latter case it may be that the patronymic associated with the estate is an indication of the identification of a descent group with a particular tract of land. Certainly none of the granting individuals share the same name as the estate, so the estate name does not seem to be named for the grantors. Equally interesting in

this context is the use of stones bearing names to identify the boundaries of two of the grants. Stones are mentioned in three instances: Cloch in Tiprat, 'Rock of the Spring', Cloch Peitte Meic-Garnait, 'Rock of the estate of Mac-Garnait', and gorthe mor, 'great pillar-stone'. Unfortunately there is no way of telling, but it may be that one or more of these was a Pictish symbol stone. Especially interesting is Cloch Peitte Meic-Gartnait, which to my linguistically untutored eye looks as though a kindred and an estate are being simultaneously identified in one of the estate's boundary stones.

The other land tenure term which occurs in the Deer notitiae is davoch, which as we have seen Barrow regards as having a Pictish origin. It emerges that the davoch is the smallest unit which these magnates making these grants deal in. It looks in Deer as though a pett consisted of at least one davoch, which lends support to the suggestion that the davoch was indeed the notional area necessary for a free commoner analogous to the English hide and the Scottic tech. It also emerges from the Deer notitiae that the hierarchy of lordship conspired to produce land dealings which were anything but simple. This complexity of landholding is what allows us to appreciate some of the social qualities behind the titles of the lords. Indeed, the Deer notitae is a prime source for examining the nature of pre-feudal kingship in eastern Scotland.

The Book of Deer lists grants made by three grades of nobility, and through the terminology and the nature of the granting the basic nature of the social organization is exposed. The grantors are designated by the titles: rí, 'king', mormaer, 'great steward' and toisech, 'chief' which was sometimes expanded

to toisech clainne, 'chief of a noble kindred'. Only one king, Malcolm II, is recorded while the other grades of noble occur frequently. Each of these terms presents its own difficulties.

The smallest political unit represented in the Book of Deer is that ruled by the toisech, who was subordinate to the mormaer, who was himself subordinate to the king. Bannerman has suggested that this relationship is roughly paralleled by the Irish system of overkings (Byrne 1973) and has proposed the following scheme:

Ireland	Book of Deer	Status
rí tuaithe	toisech	king of tribe or petty kingdom
rí túath	mormaer	overking of two or more tribes
rí coicid	rí	provincial or national king

(These comments and others of Bannerman's mentioned here are drawn from a series of lectures at Edinburgh University, notes of which were kindly provided by Bannerman's student Morag Redford).

Rí is the least problematic, referring to the preeminent lord of the country, who by the eleventh century had no serious rivals. There is thus none of the confusion surrounding Irish kingship: the Ard-rí was real, not imaginary (see Binchy 1970, Byrne 1973). This was clearly not always the case, for instance, the Irish annalists seem to use the terms rí Alban and mormaer interchangeably when speaking about eleventh century Moray (Jackson 1972:109). Bannerman notes that rí Alban may be understood to mean either a king or the king and argues that the former reading makes better sense for these earlier annalistic entries. The suggestion, if taken to its logical extreme, would imply that each of the provinces listed in De Situ Albanie (Anderson 1980:139ff, see above Chapter 2) and those which were omitted would have at one time had its own independent ruler who in the course of the tenth and eleventh centuries became one of the king's great stewards. All of which would be well within the

capacity of a system of lordship modelled on clientage and provides an attractive evolutionary explanation for the development of the Scottish state.

Even the etymology of the term mormaer is problematic; none the less Jackson's arguments (1972) that it does indeed mean 'great steward' seem definitive and supplant alternative views of A.O. Anderson, Chadwick and others. Jackson concludes that the 'first mormaers recorded in Scottish documents all belong to the North-East, to the old Pictland', which gives a strong indication of where he thinks their origin lies (1972:108). He goes on to suggest that the mormaer represented in the Book of Deer was a territorial magnate and a royal official of the highest rank whose duties included collecting revenues and administering a district. He further proposes to equate them with the Anglo-Saxon earl. However he also points out that the mormaer of the earliest historic notices seems to act independently, rather like kings. Presumably the mormaer as a royal official does not predate the emergence of the centralized monarchy and that previous to perhaps the tenth century the mormaer would have been analogous to the Irish overking (a king with other kings for clients) as Bannerman suggests.

Toisech is the most difficult to understand; at least it is difficult if we follow Jackson in drawing a distinction between the toisech and the toisech clainne (1972:110-14). The simple toisech is no problem; he is the tribal chief equivalent of the Irish petty king who ruled over his túath. But rather than take toisech clainne as a kind of elegant variation on toisech. Jackson takes a kind of wild guess and suggests that the term might refer to some sort of military deputy mormaer, a 'general

of the tribal army in the field' (ibid:112). Such an interpretation ignores the Irish situation where every tribal chief had to be by definition the leader of a 'noble lineage' to be considered for the office. Bannerman rejects Jackson's view out of hand by simply pointing out that in Celtic society there is no room for a lord whose authority does not ultimately derive from his position as head of a kindred. He thus maintains that both sorts of toisech are to be equated with the Irish rí tuaithe. Bannerman furthermore agrees with Barrow (1973) that the toisech is equivalent to the term thane as it comes to be used in eastern Scotland and Northumbria.

The case for identifing of the mormaer with the Irish overking is strengthened by noting that in the Deer notitiae, when titles are given, the grants of estates are generally made jointly by a toisech and by a mormaer, who is presumably his superior. A toisech seems to have been able to dispose of his cuit or provide feasts without the approval of his superior, but unable to grant an estate as such. This is reminiscent of the situation described in the Llandaff charters, where the king had to sanction donations of land to the church (Davies 1978:19) and may be paralleled in Ireland where we see a similar collaboration between king and overkings in land granting (Doherty 1982:309). The explanation offered by Bannerman for the situations where the mormaer alone does the granting is that the land must be occupied by his own tribe or kindred.

As was mentioned before, much of the granting concerns the cuit, a 'share' of the agricultural yield of an estate. The implication is that for a given estate, the toisech was due so much, out of which he rendered a certain cuit to his mormaer,

who in turn provided the king with his cuit. Whether every estate was under all three obligations is impossible to tell. Given the brevity of the notitiae it looks very much as though clientage of the sort identified in Ireland and Dal Riada, was also an underlying principle of social reproduction in eastern Scotland in the twelfth century. Because the Book of Deer is silent about military services and other duties the comparison at this stage has to be restricted to the payment of tribute. This is an attractive parallel but the question remains: can this be applied to the Picts?

Language is one key to determining the antiquity of these social arrangements. One might take the position that language is a simple reflection of the extent to which Scottic culture had replaced Pictish. However given that we know next to nothing about the Pictish tongue such arguments are bound to be one sided. The alternative extreme would be to maintain that the Scots added little that was not already there. The Scottic facility with writing, which caused everything to be recorded in Gaelic, also has meant that we necessarily see things in Gaelic terms. The truth obviously lies somewhere in between: small dynastic shifts can introduce substantial cultural change, but they are not likely to completely remake a society in their own image - unless there is a close resemblance to begin with. This is the position I would like to argue.

In fact despite the Middle Irish, peculiarly Pictish social institutions are apparent in the Deer notitiae. The landscape north of the Forth as we have seen was itself composed of petts and divided up into davochs. The legal terminology of tribute included cuit and 'quenching'. The people were ruled by men

bearing the titles mormaer and toisech, and although the latter is found in the west, the institution he is associated with in the east - the thanage or shire - is not. The territories that the mormaer came to be associated with are the ancient Pictish kingdoms as related in the De Situ Albanie. Moreover these notitiae are not entirely a peculiarity of a single obscure monastery in the North, but can be paralleled in the Latin notitiae in the Registry of the Priory of St.Andrew's, which come from the other end of old Pictland. These notes record a series of donations by the king of the Scots and bishops of St.Andrew's to the island monastery of St.Serf in Loch Leven. Allowing for the losses due to translation from Gaelic to Latin (to English) these are strikingly similar to the Deer notitiae, even down to the circumstances of composition. The St.Andrew's notitiae too seem to have been gathered together to argue a legal case. Thus even the mechanism by which the Deer information was recorded can be paralleled in old southern Pictland. Spatially there can be little doubt that the social relations described in the Book of Deer extended throughout Pictland; the evidence chronologically is less conclusive.

We can fix the composition of the notitiae with some confidence to the opening decades of the twelfth century. Davies's arguments that earlier charters lie behind the notes notwithstanding, there can be no question that they describe social relations as they stood circa 1100 on the periphery of the emerging feudal state. This much is clear from the existence of a single king at the apex of the three tiered noble hierarchy reflecting the growth of royal power in the tenth and eleventh centuries. The titles of the lords, especially toisech, hint at

the earlier order but give no real chronological help. We are thus left with a gap, as wide as our own remove from the composition of the notes, between the legendary Columban foundation and the final notitiae. This is punctuated only by the making of the Gospel book in the tenth century. The suggestion of the existence of a scriptorium would surely imply that the granting process had already begun, but this has little bearing on the character of the grants.

The value of the notitiae is limited: they can in no direct way be projected back into the Pictish era. What they show is that at a late date in an area remote from the Scottish court the mechanics of the political system were still those structured by kinship and regulated by clientage. In the language of the notitiae (in the cuit and 'quenching', toisech and mormaer) we have an indication that such social forms were indigenous aspects of broadly Celtic phenomena. Moreover, the notitiae throw some light on the context of granting and hint at some of the difficulties raised by the alienation of land to the church. They also illustrate in a very clear way how literate knowledge may be mobilized as a 'technology of power'.

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Abbreviations

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Archaeol J = Archaeological Journal.

ECMS = Early Christian Monuments of Scotland, see Allen & Anderson 1903.

DES = Discovery and Excavation in Scotland, annual publication of Council for British Achaeology, Scotland.

GAJ = Glasgow Archaeological Journal.

HE = Bede's Ecclesiastical History, cited by book and chapter.

MLS = Marginal Lands Survey, typescript housed in NMR.

NMR = National Monuments Record, Edinburgh administered by RCAHMS.

NSA = New Statistical Account of Scotland, see NSA.

ONB = Old Name Book complied by OS and housed in NMR.

OS = Ordnance Survey.

OSA = Old Statistical Account, see Sinclair 1976.

PPS = Proceedings of the Prehistoric Society.

PRSAI = Proceedings of the Royal Society of Antiquaries of Ireland.

PSAS = Proceedings of the Society of Antiquaries of Scotland.

RCAHMS = Royal Commission on the Ancient and Historical Monuments of Scotland.

SAF = Scottish Archaeological Forum.

SAR = Scottish Archaeological Review.

VC = Bede's Vita Cuthbert, see DH Farmer (ed) The Age of Bede.

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